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NATIONAL CANCER INSTITUTE
OFFICE OF THE DIRECTOR
ANNUAL REPORT
October 1, 1990 - September 30, 1991

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FREDERICK CANCER RESEARCH AND DEVELOPMENT CENTER

Associate Director: Werner H. Kirsten, M.D.

The Frederick Cancer Research and Development Center (FCRDC) in Frederick, Maryland, is a Government-owned facility, managed as a Federally Funded Research and Development Center by the following five contracts.

- o Basic Research Contract to Advanced BioScience Laboratories, Inc.
- o Operations and Technical Support Contract to Program Resources Inc.
- o Animal Production Contract to Harlan Sprague Dawley, Inc.
- o Computer Support Contract
- o Library Support Contract to Data Management Services, Inc.

The Associate Director is responsible for Center; a General Manager-Project Officer and a Contracting Officer operate through NCI management. During this reporting period, there were about 350 Government employees and 1,350 Contractor employees at FCRDC.

A variety of research activities are carried out by both Contractor and NCI intramural personnel. Government-operated laboratories associated with NIAID and NINDS are also at FCRDC.

A chartered FCRDC Advisory Committee meets twice a year to evaluate the overall operation of the center and to conduct peer reviews of programs under the Basic Research Contract; the Committee also evaluates services provided in other contract areas. Normally, laboratories within the Basic Research Program are reviewed once every three years, with about two reviews held each year. The Committee's evaluations and recommendations are submitted to the Institute Director, who holds final decision-making authority.

The Committee met on November 29-30, 1990. A report was given on several construction projects, including the construction of a five-story building that will be used for studies in high-containment AIDS and cancer research. This building will house most of the Program Resources Inc. (PRI) AIDS Vaccine Development Program as well as intramural projects of high Institute priority. A new wing and second-story extension is being added to Building 567 for the Division of Cancer Treatment's (DCT) Biological Response Modifiers Program (BRMP). The plans are being designed, and the construction should be completed by spring 1992. Requirements were established for a new Central Repository, which will include the new programs moving to Frederick. The Supercomputer upgrade requires extending Building 430, which houses the Advanced Scientific Computing Laboratory (ASCL). Another construction project is upgrading the Fermentation Production Facility, which, under Good Manufacturing Practices, allows bulk quantities of drugs from various natural and synthetic sources to be produced.

PRI conducted a concept review for the AIDS Vaccine Development Program, which included a subcontract, with the University of California-Davis, for furnishing rhesus monkeys to test certain potential vaccine substances. The subcontract was scheduled to terminate in July 1991.

Progress was reported on the work performed under the subcontract. A mechanism was established for testing toxicity and mutagenicity of antigens in rhesus

monkeys before assessing its effectiveness in chimpanzees. The animals received native HIV gp120 formulated in a number of different adjuvants in immunostimulatory complexes (ISCOMS) or synthetic peptides that contain the major neutralizing epitope of the HIV gp120. The studies were done with investigators at Duke University. The peptides were termed TISP 10, comprising amino acids 428 through 443, a T-cell epitope present on the gp120, and a portion of the CD4 binding region of the gp120. The rest of the peptide consisted of amino acids 303 through 338 of the outer envelope protein, which is a type-specific neutralizing B-cell epitope of gp120. The adjuvants assessed were poly A, poly U, incomplete Freund's, alum, and a muramyl dipeptide analog. The animals were examined for adverse reactivity as well as for humoral and proliferative responses after immunizations. The only adverse reactions were small subcutaneous nodules at the inoculation sites and sterile abscesses found with incomplete Freund's adjuvants. The results from these experiments on the rhesus monkeys will be applied to chimpanzees. The Committee recommended that the subcontract be continued for another year at the same cost.

The closed session of the Committee meeting was devoted to a review of the Crystallography Laboratory under Advanced BioScience Laboratories, Inc.-Basic Research Program.

The Committee met again on April 16-17, 1991, to discuss various topics including the status of the FCRDC supercomputer upgrade, which was on schedule. Progress for construction of a new AIDS high-containment building was also discussed. This structure will have about 40,000 square feet of usable space on five floors. The design will be completed in September 1991, construction is scheduled to begin in December 1991, and occupancy is planned in summer 1993.

NCI's high priority for new basic and clinical breast and prostate cancer initiatives was mentioned. The Institute plans to expand the women's health trials (particularly for breast cancer) and the studies on the relationship of diet to cancer.

Several important research findings were reported by members of the Basic Research Program (BRP). The Enzyme Structure Section of the Crystallography Laboratory determined the crystallographic structure of several proteins: ribonuclease A, double-strand directed RNases, bovine pancreatic trypsin inhibitor, RSV-AMV protease, HIV-2 protease, and interleukin 8. In addition, the structure solution of a mutant form of bovine pancreatic protein inhibitor (BPTI) was recently presented. BPTI inhibits such proteins as trypsin by forming an inactive complex. It represents an interesting prototype-protein to explore the structural effects of mutations since it's a small globular protein containing basic structural elements (such as α helices and β sheets) and it's very stable.

A group involved with drug-nucleic acid interactions has completed a crystallographic study of phenylalanine transfer RNA and various drugs. Results showed specific binding of such anti-tumor compounds as platinum, ruthenium, and rhodium, as well as the binding of such dyes and mutagens as ethidium and proflavine, to the phe tRNA. The Molecular Pharmacology Working Group is conducting structural investigations of retroviral integration proteins. Sequence information from 80 unique retrovirus and retrotransposon integration proteins showed that there is a universal, well conserved N-terminal half and a poorly conserved C-terminal half. The conserved N-terminal domain probably contains the DNA binding site and site for DNA covalent attachment.

Crystallization studies on purified recombinant RSV integration proteins are for producing suitable single crystals for x-ray diffraction. Comparable studies are being done on the integration protein of recombinant Moloney murine Leukemia virus.

Investigators of the BRP Mammalian Genetics Laboratory have developed in situ hybridization capability for studying proto-oncogene expression during normal development. Tissue-specific expression patterns of several proto-oncogenes have been characterized, most notably those of the myc and trk gene families in mice and rats. The discrete expression of trk in neural crest cells resulted in the recent discovery that this proto-oncogene is the receptor for nerve growth factor (NGF).

While oncogenes have provided the common thread for linking many cancer research disciplines, the correlation with antineoplastic drug action is lacking. If oncogenes and tumor suppressor genes are responsible for neoplastic transformation, then the ability of these antineoplastic drugs to target cancer cells would suggest that they might selectively induce alterations in the cell cycle imposed by oncogenes. The study of possible connections between oncogene function, cell cycle regulation, and antineoplastic drugs represent a new direction for the Molecular Oncology Section. For example, tubulin interacts with certain oncogene products and antineoplastic drugs, especially taxol. Although the amino acid sequences involved in α - and β -tubulin dimer formation are unknown, the precise sequence of the regions associated with the drug binding have been partially characterized. It has been determined that the mos product associates specifically with β -tubulin, and the specificity of this interaction will be used for determining tubulin structure and drug binding sites. Taxol is the first tubulin-binding drug used in these studies.

Several BRP investigators are studying various aspects of the human retroviruses HTLV-I and HIV-1. The comparative study of viruses belonging to the same group allows the recognition of elements important for the life cycle and pathogenesis of disease. Lentiviruses, the HTLV family, and the spumaretroviruses may be classified in the same retrovirus group (complex retroviruses). The most striking distinction of complex retroviruses from the other retroviruses is their ability to regulate expression by their own viral proteins. In particular, the role of negative regulatory elements has been explored. HIV and the other lentiviruses have evolved to contain negative regulatory elements needed to decrease expression and allow low or latent expression in infected cells. The analysis of HTLV-I, an important human pathogen, has revealed interesting mechanisms of regulation of gene expression by the viral factors Tax and Rex. The pathogenic mechanism of HTLV-I, using both in vitro systems and an animal model (rabbit), has been partially reproduced. Infectious molecular clones of HTLV-I and mutants have now been developed for studying viral propagation. Mutations in the regulatory and accessory genes of HTLV-I also suggest the possibility that additional proteins (accessory?) expressed by HTLV-I exist.

The binding of the HIV-1 gp120 envelope protein to the CD4 receptor at the cell surface is the first event in HIV-1 infection. A promising family of drugs acting against HIV-1 is one that acts at the cell surface level by inhibiting the virus-receptor binding. To screen and quantitate the effects of drugs on the gp120 envelope (CD4 receptor interaction), the BRP Cell Transformation Section has developed a simple, quantitative bioassay measuring the fusion between two cell lines generated by stable transfection. One cell line expresses high levels

of the HIV-1 envelope glycoproteins but no infectious virus, and the other expresses the CD4 receptor and contains an inducible chloramphenicol acetyl transferase (CAT) gene linked to the HIV-1 LTR. Upon co-cultivating the two cell lines, efficient fusion takes place within 12 hours; the efficiency of fusion can be seen as well as by measuring the induction of the CAT enzyme. The assay system has been shown to be very sensitive in detecting the inhibition of fusion by soluble CD4 and dextran sulfate. This assay can be applied to general studies involving HIV-1 envelope function without handling infectious virus. The assay may also be used for investigating drugs that interfere with the function of the tat and rev regulatory proteins of the virus.

The PRI contract for managing ASCL is in its fifth year. New procedures for approving projects and allocating resources were carried out to prevent saturation before upgrading the supercomputer. During this reporting period, PRI reorganized ASCL and hired a Scientific Director who is establishing a drug design group. The Director reported for duty in March 1991.

ASCL, supported by the Division of Cancer Biology, Diagnosis, and Centers, provides state-of-the-art computing service to NCI, NIH, and HHS scientists and to extramural researchers working with NCI investigators. More than 400 researchers use the computational facilities. The supercomputer is now regarded as major tool instrument for basic research in analyzing the structure of drugs and macromolecules; in analyzing the sequence of pathogenic genes of humans, viruses, and other organisms; and in many new areas of biomedical research. It is anticipated that advanced molecular computational methods, coupled with computer graphics and the supercomputer, will enhance the design of new improved therapeutic agents. The supercomputer has played a key role in determining the three-dimensional structure of such biologically significant molecules as the RSV and HIV proteases, paving the way for the design of potent inhibitors to viral replication.

In November 1989, Congress appropriated \$33,490,000 for the upgrade of a major supercomputer; a successful procurement was completed in July 1991.

PRI provides major support to the DCT Developmental Therapeutics Program (DTP) in vitro cell screening effort in identifying potential anticancer drugs and is evaluating large numbers of compounds in standardized test systems. In its efforts to identify new drugs and biologicals for the DTP Natural Products Extraction Program, PRI established a repository for raw materials and initiated extraction and isolation chemistry efforts. Extraction protocols are being developed and tested in the PRI Chemical Synthesis and Analysis Laboratory. A new aspect of the NCI screening program for developing anti-AIDS drugs is the in vivo testing of potential anti-cancer and anti-HIV drugs that result from the in vitro screening activities. To accommodate this phase of the program, five buildings in the animal production area were renovated.

The BRMP Clinical Research Branch outpatient unit is in a newly renovated building across from Frederick Memorial Hospital. This unit greatly expands the BRMP efforts to test novel biologicals alone and in combination with drugs. The upgrade of the Fermentation Production Facility to allow the manufacturing of bulk pharmaceutical products under Good Manufacturing Practices will begin in fall 1991. This upgrade will give FCRDC the needed capability to speed the transfer of therapeutic agents from the laboratory to the intramural clinical setting.

To answer an urgent need for a mechanism to bring promising monoclonal antibodies and recombinant lymphokines and cytokines to the clinic for evaluation, NCI is acquiring another building from Fort Detrick. It will be redesigned to provide a facility for the production, purification, and quality control of promising biologicals, under Good Manufacturing Practices.

The PRI Operations and Technical Support Contractor continued to support the Institutes AIDS vaccine effort. The PRI Laboratory of Cell and Molecular Structure (LCMS) still develops the lentivirus Bovine Immunodeficiency Virus (BIV) as an important model for AIDS. A recombinant baculovirus vector system containing the BIV gag gene has been made. The recombinant baculovirus was used to infect insect cells; the budding viral particles showed that only the gag gene was necessary for production of viral-like particles. The system was used to produce large amounts of virus to isolate structural components. The isolated particles are non-infectious since they do not carry the full complement of viral genes. LCMS has also made constructs containing the gag-pol, gag-env, and gag-pol-env genes. All the constructs lack the RNA encapsulation signals, and no RNA is incorporated into the particles. The baculovirus technology has been applied to HIV, and similar non-infectious particles have been produced from insect cells.

The PRI Biological Products Laboratory with BRP has continued to study the role of the cys-array structures (-cys-(x)₂-cys-(x)₄-His-(x)₄-cys-) found in HIV proteins. The cys-array structures in the nucleocapsid protein are common to all retroviruses, are required for packaging of viral RNA, and are found in the p7 viral protein, a nucleic acid binding protein of mature viral particle. The laboratory has defined the role of zinc in determining p7 protein conformation and nucleic acid binding. This laboratory has also generated several point and deletion mutations in the RNA binding cys-array regions of the nucleocapsid protein. The mutant virus particles have normal components of viral proteins, are deficient in viral RNA, and are non-infectious. Mutations in either of the two cys-array regions reduces RNA packaging and virus infectivity. These mutants of HIV-1 may be important for vaccine development and therapy. Also, the sensitivity of the cys-array regions to any changes could make the regions potential targets for antiviral drugs.

The env coding region of HIV-1 has been expressed in baculovirus, and immunogenicity of resultant recombinant gp120 produced by these vectors is being examined in chimpanzees. The animals developed antibody responses after extended periods. Following the peak antibody response and decline in titer, the animals were challenged with recombinant gp120 with muramyl dipeptide or immunostimulatory complexes (ISCOMS). All animals developed anamnestic responses with appreciable titers correlated with enhanced lymphocyte responses. The baculovirus expressed HIV-1 gp120 and, therefore, can induce immune (T and B cell) responses in chimpanzees.

FCRDC continues to be instrumental in supporting Institute intramural programs at Bethesda and Frederick, to provide maximal state-of-the-art science, and to meet the Institute's changing needs in its battle against cancer and AIDS.

OFFICE OF PROGRAM OPERATIONS AND PLANNING

Assistant Director: Iris J. Schneider

The Office of Program Operations and Planning (OPOP) includes the Planning, Evaluation and Analysis Branch. The office is responsible for the following.

- o Supporting the Institute Director analyzing and assisting in the decision-making process and in developing, documenting, carrying out, and monitoring policy and operating decisions, including decisions of the Institute's Executive Committee and the Director's semi-annual Budget and Planning Meeting.
- o Helping with the leadership of the Institute's strategic and operational planning and taking part in NIH and DHHS planning activities.
- o Collecting and analyzing programmatic data and reports research accomplishments, plans, and policy options.
- o Carrying out and tracking Institute evaluation projects.

In March 1991, a separate Office of Legislation and Congressional Activities was created within the Office of the Institute Director, removing these functions from OPOP.

OPOP is the contact for the NIH Division of Management Policy for relaying NCI comments on regulations and funding announcements planned by other parts of DHHS and other Federal agencies. OPOP coordinated the Institute's technical assistance to the Health Care Financing Administration and the Institute's participation in the Public Health Service discussions on two important, new Medicare cancer prevention and early detection benefits: pap smears and mammography screenings for cervical and breast cancers.

The OPOP Assistant Director continued to co-chair the NIH Advisory Committee on Women's Health Issues and was detailed for four months to help organize and operate the new NIH Office of Research on Women's Health (ORWH). OPOP coordinates activities and represents NCI on women's health issues and is the contact for ORWH in preparing for its September 1991 Workshop on Opportunities for Research on Women's Health. The Assistant Director is also the Executive Secretary for the Women's Health and Cancer Subcommittee, recently established by the National Cancer Advisory Board. OPOP is helping to further Institute programs for women's health through these activities and others.

Planning, Evaluation and Analysis Branch

Planning Officer: Judith M. Whalen

Planning activities of the Planning, Evaluation and Analysis Branch (PEAB) take place at several organizational levels: Institute, Division, NIH, and DHHS levels. The staff directs planning meetings; takes part in planning teams organized on behalf of specific programs; works directly with program administrative personnel in developing operational plans; and offers periodic consultation. Evaluation activities include developing and keeping a

comprehensive file of Institute evaluation activities; giving technical assistance in designing and carrying out evaluation projects to be contracted; and developing in-house evaluation projects. Program analysis activities include developing reports on specialized subjects and on highlights of NCI programs.

Preparation of Reports

PEAB coordinated the Institute's role in the annual NIH Director's Briefing Session. This is an opportunity for NCI to highlight important research and policy issues for the NIH Director before the Director testifies at the Congressional appropriations hearings. This year, 41 briefing papers were developed to apprise the NIH Director on NCI research and training initiatives, accomplishments, and policy developments. The papers were organized according to these categories: issues discussed in Congressional hearings-reports, issues of media interest, technology transfer issues, women's health issues, and other issues. Some of the topics addressed were gene transfer-therapy, AIDS vaccine, disparity of the burden of cancer between minority and non-minority Americans, women's health trial, upgrading and expanded usage of the supercomputer, using tamoxifen for preventing breast cancer in high risk women, taxol-natural product availability, cancer risk from nuclear facilities and electromagnetic fields, and expanding international activities and information distribution. Managing this effort involved gathering information, coordinating writing assignments among PEAB and other NCI staff, and ensuring a thorough review and revision of draft papers.

The branch generated the Institute's FY 1990 Fetal Tissue Report, which included abstracts of and budget figures for all NCI-supported projects using fetal tissue. PEAB continues to be a liaison between OD-NIH and NCI for all Institute correspondence related to fetal tissue and to clarify fetal tissue policy for NCI staff.

PEAB prepared the Institute's scientific advances for the 1992 NIH Congressional Budget Justification for highlighting recent advances achieved through biomedical research conducted at or supported by NIH. These advances were the following: discovering the neurofibromatosis gene; genetic basis of lung cancer; multistage carcinogenesis model for colorectal cancer; mechanism of the RB suppressor gene product; genetic defect underlying the Li-Fraumeni syndrome; cholesterol and *ras* oncogene activity; cathepsin D tumor marker for breast cancer; melanoma vaccine; improving PDQ; neoadjuvant therapy for esophageal cancer; preventing second primary tumors with isotretinoin in patients with head and neck cancer; taxol treatment for recurrent ovarian cancer; gene therapy studies; human tumor cell line screening; embedment-free microscopy; HIV-1 protease crystallography studies; AIDS therapy and recent decline in AIDS incidence; human herpes virus-6 as a co-factor in HIV infection; advances in AIDS-related Kaposi's sarcoma studies; and cancer risk from nuclear facilities.

PEAB staff prepared reports for NIH documents on the following topics: arctic-related research, population research, genetics research, infant mortality projects, alcohol-related research, kidney research, medical effectiveness research, science education programs, projects and data systems with rural health elements, urology research, and research and prevention activities related to leading causes of death for women.

At the request of the NIH Office of Research on Women's Health, PEAB compiled a list of relevant NCI FY 1991 and FY 1992 initiatives for the PHS Action Plan for Women's Health. A brief narrative was developed for each of 33 initiatives, including a timetable and milestones. Projects were related to female reproductive organ-specific cancers and the following: AIDS-HIV as a women's health issue; women's participation in biomedical and behavioral research; health concerns of ethnic minority women; smoking and women's health; and such interactions with the health care system as access to care, improving provider awareness, and improving individual responsibility for health care.

For the NIH Advisory Committee on Women's Health Issues, staff developed the Institute's part of the Report of NIH Support for Women's and Men's Health Issues: Fiscal Years 1988, 1989, and 1990. The submission included narrative and budget information on studies of female breast cancer and reproductive organ-specific cancers in women and men. NCI studies of lung cancer and AIDS in women were also highlighted, as were studies on AIDS-related Kaposi's sarcoma and non-Hodgkin's lymphoma in males. In the report, the Institute emphasized that the results of the research generated by the National Cancer Program will be used to relieve death and suffering from cancer in both men and women. About 90 percent of the NCI budget for these fiscal years supports research intended to benefit men and women.

PEAB coordinated the Institute's contribution to the new edition of Building a Healthy America. Charts and tables were compiled on selected cancer topics to convey information on cancer risks, cost of cancer, and current mortality rates and trends throughout the U.S.

Background materials were prepared to assist the Office of Technology Assessment in a study on pharmaceutical research and development.

Work has begun on the Institute's part of the fourth Biennial Report of the Director, NIH. Covering fiscal years 1991 and 1992, the report highlights research activities and advances and discusses policy issues that may affect public health or progress in biomedical research.

Preparation of Planning Documents

PEAB prepared the Institute's part of the FY 1993 PHS Plan. This year, the plan included a discussion of evaluation strategies for ongoing programs as well as for expected program changes. An explanation of how results from the evaluations help to shape new program directions was also provided. NCI's report described plans for these major program changes: expanding efforts to address the disproportionate, high cancer death rates among minority and underserved populations; enhancing the Institute's Research Manpower Development Program; increasing efforts and resources for developing cancer vaccines; and improving cancer research facilities with additional support to the Construction Program. New emphases in the Institute's AIDS Program were also included in the report.

The branch has developed and keeps a tracking system for following progress on the commitments made by the Director at the annual Congressional appropriations hearings. A concise record of Institute plans that were discussed at the hearings, along with entries describing the initiatives undertaken to address these plans, has proved useful. At several times during the year, the tracking

system was updated to reflect current activities related to the commitments for FY 1990 and 1991. The document is organized to highlight the level of progress achieved in carrying out the plans and honoring the commitments made at the hearings.

PEAB coordinated the Institute's input for the NIH Strategic Plan, designed to identify the NIH research-policy priorities and plans for FY 1992-1996. The plan is organized around 11 promising areas of science and 11 major policy issues. Trans-NIH panels were established for each of these areas. PEAB assisted the Institute Director in his role on these panels, as well as in developing relevant scientific initiatives and policy statements for the plan.

Evaluation and Analysis Activities

The Institute's overriding mission is to prevent and cure cancer, thereby alleviating human suffering caused by this disease. Some advances also result in economic benefits through health care and productivity cost savings. PEAB prepared two case studies on cost savings resulting from NCI-supported applied research and clinical trials. One study measured the clinical and economic impact of smoking cessation for patients counseled by their physicians to quit. The other study calculated the cost savings realized by using the combined modality therapy of postoperative radiation plus chemotherapy (5-fluorouracil) to treat high risk rectal cancer patients.

PEAB did a pilot evaluation of the Outstanding Investigator Grant (OIG) mechanism to determine the success of this funding vehicle in achieving program goals. This mechanism was designed to provide funding stability to researchers with outstanding records of achievement in cancer research and to offer increased flexibility for their pursuing innovative or high risk research projects. Two sets of evaluation questions were used to collect qualitative data from the first cohort of OIG recipients applying for renewal and from reviewers of the applications. Quantitative data extracted from the grantees' bibliographies were used with reviewers' comments to assess the OIG's impact on the grantees' scientific output. Results of the preliminary analyses indicated that the OIG program has met its goals in providing the grantees the flexibility to initiate innovative or high risk research projects, in supporting cancer-relevant research programs, and in relieving the grant-related administrative burden of the recipients. Comparisons of the grantees' publication records, pre- and post-award, indicated that the OIG did not influence scientific output and that the output of the cohort remained high. The results of this pilot study were used for recommendations regarding a potential full-scale evaluation, which could more adequately measure the impact of the OIG mechanism.

The Planning Officer organized and directed a trans-NCI P01 Working Group comprised of a cross-section of NCI staff to review the advantages and disadvantages of program project grants and to identify possible alternatives for supporting research now funded by P01s. Some attention was also given to alternative mechanisms for some studies funded by the U10 (Cooperative Group) mechanism. The Working Group developed an issues and options paper that provided a rationale for using alternative funding mechanisms, including interactive R01s, within the RPG pool for selected types of research. This paper was presented and discussed at Executive Committee meetings, and a

recommendation was made to develop a pilot project for one of the concepts described in the paper.

Another activity is to keep a record of completed and ongoing evaluation projects throughout NCI. PEAB is a resource for information on NIH evaluation set-aside funds and on NCI evaluation studies and activities and helps in developing evaluation plans at NCI, NIH, and PHS levels. The Planning Officer is a member of the NIH Technical Merit Review Committee, which reviews proposals from the NIH community to use evaluation set-aside funds.

Other Activities

OPOP--and more specific, PEAB--is the official Institute contact for the General Accounting Office (GAO). PEAB has presented background material to GAO staff members who are conducting a study of the progress in the past 20 years in preventing and treating breast cancer. In another area, PEAB has submitted quarterly status reports on NCI's implementation of recommendations in the 1989 GAO report "Breast Cancer: Patients' Survival."

The branch coordinates the Institute's response to requests for comments on the these issues: proposed regulations related to public health (such as Medicare coverage of screening mammography and Pap smears) or on changes to existing regulations such as those concerning training authority at NIH. PEAB consolidates Institute staff comments to prepare an Institute response. The branch also coordinates the review of RFPs, RFAs, and PAs under development at other health agencies when NCI comments are solicited.

As Executive Secretary for the NCAB Subcommittee on Planning and Budget, the Planning Officer provides staff support and guidance to the Committee as it fulfills its responsibilities. This group reviews and advises NCI on such budgetary issues as the assumptions for the FY 1993 By-Pass Budget and on the NIH Strategic Plan. The Committee has begun work on the FY 1991-1992 NCAB Biennial Report.

The Planning Officer represents the Institute at NIH Planning and Evaluation Officers meetings. The Planning Officer is also a member of the Staff Training in Extramural Programs (STEP) Committee and a member of the OD-NIH Executive Committee for the Division of Planning and Evaluation, Office of Science Policy and Legislation.

OFFICE OF LEGISLATION AND CONGRESSIONAL ACTIVITIES

Legislative Liaison: Dorothy A. Tisevich

The Legislative Office is a liaison between the Institute Director and Congress. Its primary mission is to keep the Director, the Institute staff, the National Cancer Advisory Board (NCAB), and the President's Cancer Panel apprised of Congressional activity that may affect the National Cancer Program. Its purpose is also to convey information about NCI policy and programs to members of Congress and their staffs.

Office responsibilities include the following: developing legislative proposals; coordinating the preparation of Congressional testimony or statements presented by the Institute Director and staff; briefing NCI staff for Congressional hearings and visits; and supplying copies of bills, hearing reports, and Congressional Record excerpts. The legislative staff also conducts briefings for members of Congress and their staff on the National Cancer Program's research initiatives and advances, grant and contract awards, and the Institute budget process. The office is responsible for coordinating all written and telephone inquiries from Congressional staff and provides information on sensitive policy issues of concern to Congress.

The Legislative Office is responsible for preparing other documents that inform the NCI community and non-Federal organizations participating in the National Cancer Program of all relevant legislative, Congressional, and administrative policy developments. The staff regularly briefs NCAB, divisional Boards of Scientific Counselors, and outside organizations on Congressional activities by preparing the "Legislative Update" three times a year. Copies of this document are distributed annually to more than 1500 individuals in the biomedical research community.

Activities

Hearings and Briefings

- o The office assisted in or coordinated the preparation of testimony for Congressional hearings on these issues: appropriations; reauthorization; pediatric AIDS; conflicts-of-interest; development of disease in mid-life and older women; women's health; taxol; breast cancer research; software copyright protection; and the twentieth anniversary of the National Cancer Act.
- o It assisted with or coordinated the briefing of Congressional members and their staffs on cancer and AIDS research; prostate cancer; surrogate endpoints in AIDS and opportunistic infections; women's health; extramural research; and the maximum reimbursement for mammography screening.
- o During the last session of the 101st Congress and the first session of the 102nd Congress, the office monitored more than 400 bills concerning appropriations, NIH reauthorization, animal welfare, AIDS (research, treatment, and prevention); constructing biomedical research facilities; tax credit for screening procedures; prohibiting honoraria; technology

For Congressional members, a legislative document was prepared on issues to be addressed at the FY 1992 Appropriations and Reauthorization hearings. These issues included patient access to clinical trials; AIDS funding versus cancer funding; unconventional cancer therapies; STOP Cancer; women's health; science enrichment education; etiology of cancer; comprehensive cancer centers; and general cancer funding.

The office assisted the NIH Division of Legislative Analysis in developing FY 1993 legislative proposals for the Office of Assistant Secretary for Health.

NCI staff comments and recommendations on bill report language and legislation of interest to the NIH community were coordinated at the request of the Office of Science Policy and Legislative and DHHS.

Articles on Congressional and legislative issues were submitted to the Journal of the National Cancer Institute.

OFFICE OF ADMINISTRATIVE MANAGEMENT

Associate Director: Philip D. Amoruso

Deputy Associate Director: Donald P. Christoferson

The Office of Administrative Management (OAM) coordinates and manages all Institute administrative activities and is headed by the Associate Director for Administrative Management who is also the Executive Officer.

The Office consists of eight branches: (1) Administrative Services Branch (ASB); (2) Extramural Financial Data Branch (EFDB); (3) Financial Management Branch (FMB); (4) Grants Administration Branch (GAB); (5) Management Analysis Branch (MAB); (6) Management Information Systems Branch (MISB); (7) Personnel Management Branch (PMB); and (8) Research Contracts Branch (RCB).

OAM Activities

Various OAM branches used automated technology to produce new reports, to enhance existing systems, and to devise new ways to transfer information electronically. The branches have contributed to the improvement of the Institute's administrative management by performing these services.

- o EFDB Extramural Information System enables users to generate reports on specific investigators, institutions, and states.
- o FMB has improved the flow of fiscal material by using methods for electronic distribution and has implemented the use of new procedures for Commitment Base estimation with central NIH.
- o GAB has modified the Grants Management System (GMS) upload and download systems and has installed voice mail (Merlin Mail).
- o MISB has expanded the Local Area Networks (LANs) in Executive Plaza and Building 31, more than doubling the former base; has developed a migration path from the present 3Com platform; has modified the hardware and software contract to support this migration; and has enhanced the communications between Executive Plaza LANs and those on the NIH campus.
- o ASB has set up (1) the automated Property Management Information System (PMIS) for new acquisitions, changes, and transfers of property and (2) the Administrative Data Base System (ADBS) for preparing domestic travel orders and requesting cash advances.
- o PMB has begun to use the PHS Work Force On-line data system to access historical and current personnel and pay information and FTE information.

RCB Printing Acquisition Program has been an outstanding success. The time required for acquisitions has been reduced drastically, acquisition costs have not increased, and savings in the administrative area have been realized.

NCI management has started to incorporate Total Quality Management (TQM) in OAM and in Divisional Administrative Operations. TQM is a strategic, integrated management system for achieving customer satisfaction. It involves all managers and employees and uses quantitative methods to continuously improve

organizational work processes. For assisting with TQM and for developing a plan to carry out TQM, a Quality Council was formed. The Council's major responsibilities are to lead in the TQM effort, to provide resources, to monitor TQM progress, and to recognize and reward successful achievements. The Council is identifying opportunities for process improvement and creating Quality Improvement Teams to achieve these opportunities in the coming year.

Administrative Services Branch

Chief: Susan M. Kiser

ASB serves the immediate Office of the Director (OD) and the ten OD-affiliated offices. It is responsible for general office services, international travel, domestic travel for the immediate OD, domestic travel policy for the Institute, and space management, keeping NCI central files. ASB also coordinates all Institute administrative issues.

Centralization of Procurement

Since September 1989, purchasing agents have reduced, by more than 50 percent, interest paid in penalties from of unauthorized purchasing generated from inadequate DELPRO data entries. An automatic tracking mechanism now reviews all subscriptions, memberships, maintenance contracts, and rental renewals before these "purchases" are logged in the system. This method of tracking will enable purchasing agents to make any changes before renewals take place, thereby reducing chances for Unauthorized Purchase Agreements.

The present system for tracking all OD purchase requests for services or supplies has been a question and answer software package that is accessed through AT&T terminals. Purchasing agents will now begin using a computer communication package called "Irma" to track such requests.

File Room Contract

The file room staff now uses an automated records management system. This microcomputer-based system contains descriptive information about each document or media stored in the file room and identifies the location of the material. More than 30,000 documents from both internal and external sources are referenced in the system. The expected date for converting from the present manual (paper) filing system to the automated system is July 30, 1991.

"Archiving" is another feature of the system that will identify and track documents not in the file room. When a document is filed in or archived to another location, the system will keep a record of that document and the archived location for future reference.

United Information Systems (UIS) has suggested using the archiving feature to offer other OD areas another option: having materials sent to the file room for entry into the system and then returned to the branch. The contract officer is reviewing this proposal.

Property Accountability

The automated Property Management Information System (PMIS) is now set up for new acquisitions, changes in existing property records, and transfers. The second phase of the on-line system will be the NIH 2066, "Record of Personal Appeal Items." Most property subcustodians have been formally trained to use this system.

To help with NCI property management, the divisions designated a lead property coordinator to assist the head Property Management representative with any division problems or issues. The NIH-wide property inventory has been completed, and all subcustodians are now responsible for maintaining their records.

A Property Management Committee, consisting of Institute property management representatives, administrative officers, and executive officers, has been formed. The Committee will meet monthly to exchange ideas and to be apprised of the latest property issues.

Leasing Accountability

ASB has developed a computer software program to simplify the tracking of renewal agreements for leased equipment throughout the OD. This system will ensure the timely processing of renewal agreements to avoid potential lapses in leases, and it will ensure greater cost accountability of such equipment.

Travel

A tracking system has been developed to ensure that travel vouchers are submitted in a timely fashion, reducing the number of delinquent notices received from the NIH travel office. The office set up the Administrative Data Base System (ADBS), an electronic system for preparing domestic travel orders and requesting cash advances. The system greatly reduces the processing time of travel orders. A new question and answer tracking system has also gives an accounting of all travel orders and vouchers.

FTE and Financial Systems

Each OD branch and office has been assigned an FTE ceiling as well as a budget for the fiscal year. Complementing this decentralized policy, ASB periodically prepares individual branch and office reports detailing current expenditures and projecting the balance for the fiscal year. One of these reports, the new Service and Supply Fund Report, is prepared by a branch-office custodian who keeps an accounting of credit card charges at the self-service store. Keeping such a record has reduced the potential for fraud and for abusing the privilege of using the card.

Another new financial management tool is the Status of Funds System. This system can retrieve financial data from the Division of Financial Management and can integrate the information in the OD Management Accounts Structure. This system not only enables OD to download weekly transactions from the Central Accounting System but also allows the user to create customized reports for summarizing the transaction data. The system offers greater management

control over the allocated resources and significantly enhances the Director's and Branch Chiefs' planning capabilities.

General Administration

ASB has set up a new personnel tracking system to ensure that all OD personnel actions are properly completed. With computerized logs, the status of all SF52s, within-grade increases, probationary letters, and training requests can be followed efficiently. ASB has prepared a handbook for explaining the procedures and policies on common personnel and training issues.

ASB has established a control system for the messenger service. This system reduces unauthorized use of outside vendors and ensures that all pickups are coordinated to eliminate unnecessary, duplicate pick-ups and to reduce the cost of accompanying charges.

ASB has been connected to the Building 31 computer network, which supplies enhanced communication services to many NCI offices.

ASB is coordinating renovations for the Office of Cancer Communications, Management Analysis Branch, Office of the Assistant Director, Office of International Affairs, and Personnel Management Branch. The work is being completed in a timely manner, allowing an uncomplicated return to the renovated areas.

Extramural Financial Data Branch

Chief: Stephen M. Hazan

EFDB is responsible for the financial management of NCI grant and cooperative agreement expenditures. The branch maintains financial data on grants; performs financial analyses for recommending funding guidelines and policies; prepares budgets for the Institute grant programs; and responds to requests for data on historical and current grant funding. EFDB provides information system services for program, review, and contract management staff by managing the Contracts Management System (CMS), the Pre-Award Tracking System (PATs), and the Contracts Administration System (CAS). Moreover, EFDB offers a variety of information systems services to the Institute extramural and management staff.

Budget Formulation and Execution

Plans for funding grants were developed, monitored, and modified to ensure the proper spending of funds that support the Institute's scientific assistance programs.

As a result of a House Appropriations Subcommittee report, a tracking system for budgeting grants was developed to assure that arbitrary, across-the-board, downward negotiations of grants will be avoided. Program managers also monitor the average length of the Research Project Grant (RPG) awards (excluding the Small Business Innovative Research program) to assure that the Congressional mandate of no more than 4.0 years is observed.

EFDB prepared periodic reports on the Institute's progress in complying with the Congressional directive that the average RPG cost increases would not exceed the Biomedical Research and Development Price Index.

EFDB prepared databases to formulate grant budgets for the 1992 Congressional Justification, the 1993 Bypass Budget, and the 1993 DHHS submission to OMB.

Information and Analysis Services

Program Project Grant (P01) Sub-project Investigator Project

Responding to an NCAB request, EFDB and GAB examined the sub-projects of all P01 grants awarded in FY 1990. This examination was to determine how many individuals who are not Principal Investigators on their awards receive significant funding as sub-project investigators on these grants. One of the several analyses showed only two such researchers had more than \$500,000 in direct cost support.

Extramural Information System

EIS, referred to as VIP in last year's submission, was completed in August 1991. EIS will replace the printed books that EFDB had prepared in previous years for reporting grant awards by principal investigator, institution, city, Congressional district, and state. EIS, an electronic information system, is accessible through WYLBUR and available to all NCI users. The system has been developed to handle many enhancements in the next fiscal year, including data on active grants and implementation of the database server recently procured by EFDB.

Analysis of the Outstanding Investigator Grants (OIG) and MERIT (R37) Portion of RPGs

EFDB staff analyzed the budgetary consequences of including OIG and R37 grants in current- and future-year commitments within the RPG mechanisms. After performing several analyses, the Institute established a policy that limits the total funds allocated to these two mechanisms to no more than 15 percent of the total funds available for RPGs. This limit will guarantee that the most productive researchers are awarded these grants under a more stable funding environment for the entire RPG portfolio.

Database Server

EFDB has received a new database server that will be the hub of a series of databases accessible through the DCRT NuNet project facilities.

Contracts Management System

The CMS system maintenance and development contract with General Sciences Corporation (GSC) expired on June 30, 1991. Since GSC was not eligible to bid on the recompetition of the contract, the Institute awarded Massachusetts Technological Laboratories (MTL) the new five-year contract. MTL will continue delivering reports and collecting necessary data to maintain the system. MTL will also develop new capabilities for system to take advantage of the benefits of a network environment.

Timekeeping System

EFDB has developed a system to track time and attendance of branch employees working according to flexitime rules. When the timekeeper has entered information from sign-in sheets and official leave requests (SF-71), the system summarizes the data in a report for completing time cards efficiently. The system is being modified to enable the electronic entry of time data. This data will be captured by bar-code or similar entry devices, eliminating the need for the timekeeper to manually enter sign-in sheet data. When the electronic data entry module is completed, the system will be available to other Institute offices.

Other Services

The Shannon Award

The new NIH Director, Dr. Bernadine Healy, has created a new grant award, the "Shannon Award," for investigators whose meritorious applications were just below the FY 1991 pay-line. A new evaluating and awarding process was established for these awards during the last five months of the fiscal year.

EFDB was responsible for coordinating the nominating process, distributing the Institute's internal review and ranking of the applicants, and submitting these nominations to the NIH Director. After the Director's selections were made, EFDB oversaw the financial managing of the NCI Shannon Awards, including allocating funds between accounts constrained by the Institute's single-year funding authority and accounts having multi-year funding authority of the NIH Director's discretionary fund.

Financial Management Branch

Chief: John P. Hartinger

FMB is responsible for formulating, presenting, and executing the Institute's annual budget. These tasks encompass planning, organizing, and directing a comprehensive financial management program that includes not only developing formal budgets for the Federal Executive and Legislative Branches but also establishing, evaluating, and monitoring the systems for expending Federal funds.

Commitment Base Estimation

FMB analyzed the NIH method for forecasting noncompeting requirements for Research Project Grants. After a series of negotiations and data demonstrations with the NIH Division of Financial Management and the NIH Division of Research Grants, NIH changed the methods for estimating the commitment base. The new procedures are also conform with the House Appropriations Committee requirement for improving methods to contain costs.

Royalty Process

FMB produced a manual on the Royalty collection process after interviewing NCI, NIH, and National Technical Information Service staff members. The manual covers administrative procedures and costs involved in the process, from the

inception of the invention report, through the granting of the patent, to the collecting and disbursing of royalties.

Intramural Indirect Costs

At the request of NIH, FMB took part in an analysis of indirect costs for intramural research. This study, which will continue next year, may be a useful complement to analyses of extramural indirect costs.

Improving or Reducing Paper Flow: Electronic Review of Accounting Reports

FMB has installed a contractor-developed software package to provide electronic access to accounting reports. This system is being used in NCI administrative offices to examine individual division transactions and can access more than one million annual transactions.

The Advice of Allowance forms are now computerized and printed on office laser printers. NIH-DFM also agreed to accept a table summarizes changes instead a photocopy of the form. This summary is used by DFM to acknowledge receipt of allowance changes and gives a simple, automatic cross-checking and tracking of FMB allowance changes.

When the monthly Service and Supply Fund reports are now generated, they are grouped by NCI organization rather than by the Common Account Number (CAN) to streamline their manual distribution to NCI administrative offices.

Grants Administration Branch

Chief: Leo F. Buscher, Jr.

GAB Responsibilities

- o Monitoring the financial assistance process to make sure that all required business management actions are performed by the awardee and by the Government in a timely manner both before and after award.
- o Evaluating and monitoring business management capability and performance of applicant organizations and awardees, as well as internal operating procedures associated with the business management aspects of the financial assistance process.
- o Interpreting and developing financial assistance policy.
- o Reviewing all financial assistance applications, financial status reports, and other pertinent documents to ensure awardee compliance with established administrative and financial policies and procedures and sound business practices.
- o Negotiating and making grant and cooperative agreement awards and assisting program directors and grantees in interpreting policies.

NCI Construction Grant Program

A major GAB task undertaken in FY 1991 was reviewing and updating all policies and procedures of the NCI construction grant program. GAB, with the Research Facilities Branch-DCBDC, developed a system for monitoring and certifying the usage of space for all NCI-supported construction grant projects (C06). More than 60 grantees and 160 grant projects were involved. Each recipient was asked to give details about using NCI-supported space from the date of occupancy. These projects will be monitored throughout the 20-year commitment period required by NCI policy. An extensive database that includes the fiscal year, grant number, institution, NCI funding, total cost of the projects was developed to track each NCI construction project.

GAB is also active in many other areas of the construction grant program: assisting in writing revised NCI program guidelines; pursuing ways to establish legislative authority for recovering funds if a recipient of construction funds uses the facility for purposes other than cancer research; and working with NIH staff to develop NIH-wide practices for construction grant programs.

Training New Staff

GAB has developed a training program to combine theory and practice for new specialists. This program, consisting of about 35 one-to-two-hour seminars on various grants management topics, is conducted by GAB "experts." At some of these seminars, the staff members from the NIH Policy Office, DFM, and NCI-EFDB discuss their respective office roles, their interaction with GAB, and the NCI funding system. For the first six months, each trainee rotates bimonthly to individual senior specialists who serve as mentors, under the supervision of the team leaders. The recruits also tour a cancer center and attend a presentation on the center's business management systems.

These training sessions are to instruct trainees on selected policies and guidelines that, combined with individualized training, should qualify a trainee for a grants administrator position. The time team leaders and specialists devote to the training process has been, and continues to be, a worthwhile investment. NCI is the only Federal component to offer such a program, none existing in any other agency.

Policies

This year, GAB has focused on establishing new NCI-GAB policies and guidelines and revising old ones. The following policies are being reviewed or have been published.

- NCI 1.02 Administrative Increases For Salaries
- NCI 3.12 Concurrence Memoranda
- NCI 3.18 Duplication of Support
- NCI 3.35 Provisional Awards
- NCI 3.38 Guidelines for Award of Grants Not Exceeding \$50,000 Direct Costs
- NCI 4.20 Change of Grantee Institution
- NCI 5.19 Minority Research Supplement Program
- GAB 1.12 Congressional Inquiries - Written and Telephone
- GAB 1.13 Consortium Grants

- GAB 1.26 Veterans Administration Investigators
- GAB 1.28 Privacy Act and Freedom of Information
- GAB 3.15 Request for Revised Budget
- GAB 3.32 New Grantee Institutions
- GAB 3.34 Research Patient Care Costs
- GAB 4.02 Change Notices
- GAB 4.18 Successor in Interest
- GAB 5.06 Individual Fellowships Guidelines-NRSA

Tracking System for Incomplete Applications

Over the years, the time spent acquiring documentation for incomplete grant applications has greatly increased. To improve its efficiency, GAB has devised a system for tracking the extent of this incompleteness, for analyzing specific data in these applications, and for working with the institutions that routinely submit incomplete applications.

Before tracking system was established, staff members did not realize the extent to which this problem existed, assuming part of the problem was in not quickly discovering an incomplete application. In 1985, the branch's operational systems were reorganized to review applications as they arrived. The system identifies institutions submitting 10 incomplete applications or more in a fiscal year. These institutions are continuously contacted until their applications meet Institute requirements. Using this tracking system, the following has been noted.

- o In FY 1990, 43 percent of the applications submitted were incomplete. GAB sent 3,434 letters and made many telephone calls to obtain the missing information.
- o In FY 1991, 37 percent of the applications were incomplete; GAB sent 2,368 letters.
- o Of the 40 institutions that submitted 10 (or more) incomplete applications in FY 1990 and/or in FY 1991, 26 institutions submitted incomplete applications in both fiscal years.

Computerization

GAB completed the LAN installation, adding 30 work stations to the original pilot. All GAB staff now have access to the network.

- o Two new high-quality laser printers (HP IIID) were installed on the LAN on the second floor to give all staff access to high-quality printer output. WordPerfect macros were written to automate printing of letters, memos, and envelopes.
- o Share spoolers were added to the older laser printers, and new cables were installed to give the Awards, Records, and Control team access to a laser printer.
- o The GAB LAN was connected to the EPS-EPN backbone. This is a fiber optic cable that connects LANs in the south building to networks in the north building, via a gateway. The north building is, in turn, connected to

the NIH main campus, via a T1 data line that allows ultra high speed access to mainframe systems and to the NIH campus-wide NUNET system.

- o The GAB LAN obtained a BITNET node designation, which allows all network users to communicate with national and international research institutes through E-Mail. Some of the GAB specialists are now communicating with grantee business offices and investigators through electronic mail. Communicating electronically with grantee institutions will probably increase in FY 1992.
- o GAB staff modified the Grants Management System (GMS) upload and download systems. Specialists no longer use a floppy disk at a central PC location to upload grant files to or download them from the IMPAC system; these files are now electronically sent or retrieved by individual staff computers.
- o GAB installed voice mail (Merlin Mail) on the office phone system. The voice mail answers and directs calls. Outside callers are also able to reach grants management specialists, team leaders, or section chiefs directly or to leave a message without the assistance of a receptionist.
- o GAB is conducting a series of in-house computer training sessions for WordPerfect, Lotus 123, LAN E-Mail, and the like for small groups of managers, specialists, and support staff. As a result, GAB has increased its computer expertise in classes tailored for the branch and with minimal disruption in office schedules.

Management Analysis Branch

Chief: Thomas L. Kearns

MAB responsibilities are to develop, interpret, and carry out Institute policy and regulations; perform management studies and surveys; analyze organizational proposals; and advise management on organizational structure and on preparing special analyses and reports dealing with the administrative aspects of Institute operations or programs.

Special Projects and Studies

MAB prepared a "Calendar of Events" to register the financial and administrative events in which OAM plays a key role. This calendar highlights the events that are time-intensive, affect a significant number of staff, and recur annually. Eventually, this calendar will be used as an analytical tool to examine how such activities may be performed more efficiently.

MAB served as the Institute coordinator for the following.

- Voluntary Leave Transfer Program
- Policy and procedural aspects of PMRS and EPMS
- Flexiplace experiment by OPM (working at home)
- 1991 Savings Bond Campaign.

A study was conducted to determine if the Surgeon General's approval was required for carrying out the Cancer Prevention Fellows Program; the Institute Director will approve the program.

MAB prepared a report on the Implications of NIH I&I, OER 90-8 Entitled "NIH Staff Co-Authorship of Publications Resulting from NIH Extramural Awards" for division administrative officers. Several memoranda followed in which various aspects of the issue, resulting from the revised NIH policy, were analyzed.

MAB coordinated and prepared the annual NIH-wide Staffing and Space Use Survey for the OD divisions.

A member of the MAB staff served as the Executive Secretary for the Total Quality Management Council; prepared and distributed minutes, agenda, and various TQM training materials; and assisted the Chair and facilitator with the pre- and post-planning of Council meetings and training.

A member of the MAB staff served on the TQM Training Implementation Committee and the TQM Project Selection Criteria Subgroup.

Responses to 15 Records Disposal Authorizations for DMP-NIH were reviewed and coordinated.

A member of the MAB staff served on the GAB Technical Evaluation Panel for the Grants Records Management Center, reviewed contract proposals, and met with the panel to discuss and rate the proposals.

Special Reports

MAB coordinated, collected information for, edited, and produced the Institute's FY 1990 Report on Administrative Accomplishments, which highlights the Institute's many noteworthy achievements in administrative management.

MAB submitted the annual OMB Information Collection Budget Request for all proposed NCI public information collections for FY 1991 and FY 1992 to NIH-OER.

Organization Changes

Division-level: proposed a change in the Division of Extramural Activities function statement (1) adding a reference to the responsibility for aspects of the Comprehensive Minority Biomedical Program and (2) deleting a reference to a function no longer performed.

Semi-annual update of the NCI Organization Charts and Function Statements: revised, printed, and distributed a complete set of Institute function statements and organization charts in April and October 1991.

Policy and practice associated with organization change: reviewed and processed 31 other organizational changes in the NCI divisions.

Information Collection From the Public - The Paperwork Reduction Act of 1980,
P.L. 96-511

MAB advised program staff on proposed information collections from the public, as well as on the applicability of OMB regulations to these collections. The branch assisted with preparing and processing necessary OMB clearance documentation and was a liaison between the Institute and other governmental echelons to secure approval of proposals. Seventeen OMB requests were reviewed and submitted to NIH/PHS/HHS/OMB for approval.

MAB assisted NIH and NCI Privacy Act Coordinators and DCT AOs with the Privacy Act and OMB clearance for a planned DCT Tracking System for training programs.

Manual Issuances and Policies

MAB revised the NCI Training and Fellowship Programs Handbook. This involved reviewing and updating about 44 various training-funding programs. The policies were printed and distributed to more than 300 handbook users.

A member of the MAB staff took part in a subcommittee for revising NIH policy on the NIH Manual System, a system for developing and promulgating NIH policy.

MAB prepared an analysis for supporting a request to redelegate the NCI Director's authority to approve foreign travel.

Working with MISB, MAB developed a revised Delegation of Authority and an NCI Manual Issuance on ADP Acquisitions; this revision addressed issues stemming from an internal audit of ADP purchase policy and procedures.

As a result of the revision of the NIH Travel Delegations of Authority, MAB analyzed all NCI Travel Delegations to determine if internal delegations needed to be changed to complement the NIH revisions. Twelve new or revised NCI Travel Delegations of Authority were prepared and approved.

To redelegate the Director's authority, MAB prepared and distributed an NCI Delegation of Authority, which permits selected NCI staff members to accept the uncompensated services of special volunteers.

MAB prepared and distributed a policy on Acceptance of Payment for Travel from a Foreign Government.

MAB revised NCI Manual Issuance 1121, Organization Change, to clarify the Personnel Management Branch role in the organization change process and to add EEO as a reviewing office for organization changes. The form for requesting organization changes at laboratory, branch, or lower levels was also revised.

MAB revised and distributed the NCI Manual Chapter on Procedures for Auditing Timekeeping.

Management Information Systems Branch

Chief: Betty A. Sullivan

MISB is the Institute consultant for selecting, applying, and using automatic data processing (ADP), office automation (OA) and telecommunications (TC) technologies. MISB determines the requirements for such systems; designs, carries out, and maintains application systems and Local Area Networks (LANs); advises the Institute on the technological and policy impact of developments in ADP, OA and TC; and coordinates the Institute's Information Resources Management (IRM) activities.

Support for NCI-NICHD LANs

Activities continued in all phases of LAN support: network design and configuration; cable, hardware, and software installation for individual work groups; training of LAN administrators and supporting users; planning and product evaluation for integrating and expanding capabilities of NCI and National Institute of Child Health and Development (NICHD) LANs in Executive Plaza and Building 31.

- o LANs were installed in the Research Contracts Branch (RCB), DCE and DCPC director and administrative offices, the Laboratory of Animal Science (LAS), and NICHD at Executive Plaza South. The OD LAN was expanded to cover all OD staff on the 11th floor. Fifteen file servers, 3 gateways, and about 175 workstations were installed on NCI-NICHD LANs, more than doubling the LAN connections. User assistance and LAN training were offered to users in the immediate OD, MISB, DCPC, EFDB, GAB, RCB, DCE, LAS, Radiation Research Program (RRP), and NICHD. DOS version 5.0 was tested and integrated into LAN IBM-compatible workstations.
- o MISB consulted with OCC, PMB, the DCT Administrative Office, the DCT Cancer Therapy Evaluation and Clinical Oncology Programs, DCBDC, and DEA to prepare these operations for LANs. New cabling schemes were also studied to accommodate the Ethernet standard on a star-wiring configuration.
- o MISB looked into hardware and software options for developing a migration path from 3Com. Briefings on these migration plans were held for NCI and NICHD staff.
- o Five LANs were upgraded to the 3+Open, OS/2-based operating system. These upgrades are the precursor to the expected migration to Microsoft's LAN Manager network operating system.
- o The "NCI-NICHD LAN Hardware and Software" contract was updated to reflect technological advances. New products for the 10BaseT standard, new file servers, and operating system software were added to the contract.
- o A hub for electronic mail was established in Executive Plaza to accept all E-Mail and to distribute it to LAN-attached personal computers in Executive Plaza. The mail hub relieves the individual network administrators from updating their route tables when a LAN is added in the NIH community.

- o Cabling was completed on the eleventh floor of Building 31. The OD LAN server was upgraded to a 3Com 521 server; the network operating system was upgraded to the latest 3Com version, allowing DCE to share a server with OD.
- o LAN Administration was provided for the OD-DCE network in Building 31.
- o Procedures were established for network data archiving and for testing each network interface card when it is received from the hardware contractor.
- o Facsimile gateways, asynchronous gateways, and 3270 gateways were tested in the LAN environment and are now being used.
- o Procedures were developed and carried out for keeping and distributing a monthly NCI LAN Users Directory.
- o A variety of LAN and microcomputer software packages were evaluated for their ability to meet specific user requirements or to enhance the NCI-NICHD LANs. These packages included a distributed printing package for OS/2-based networks, communication packages, calendaring software, and LAN utilities.
- o Plans were developed for the backbone in Building 31, enabling all NCI and NICHD users to be connected to NUnet. A LAN closet on the third floor of Building 31 will be constructed.
- o MISB staff took part in NIH and NCI groups to develop requirements for networking activities and to coordinate these activities. These groups are the Office Technology Coordinators Networking Subcommittee, which recently developed requirements for replacing the 3Com mail system; the NIH Mail Directory Working Group, which is developing an NIH-wide LAN user directory of electronic addresses, building and room numbers, telephone and facsimile numbers, and mail-forwarding capabilities; and the Working Group for NCI-Frederick Cancer Research and Development Center Network, which was responsible for a survey of computers and networks and for LAN closet recommendations.

User Assistance and Consultation

MISB assisted users and consulted with Institute staff and other agencies in using hardware and custom and commercial software in the mainframe, in IBM-compatible and Macintosh microcomputers, and in LAN environments; in procurement specifications and procedures; and in options for initiating or modifying current automation approaches.

The MISB responses such inquiries ranged from brief telephone discussions to a series of discussions, contacts with third parties, and more formal analyses or interventions in which potential problems were noted. Typical activities in this area included the following.

- o Evaluating and becoming familiar with new and upgraded commercial software products including MS-DOS 5.0, PC-DOS 5.0, Microsoft Windows 3.0, MS-OS/2 1.2, Stacker, Expanz, a variety of DOS utilities,

Xtree, Norton Utilities and PC Tools. The hardware products evaluated were various new printers and font sources, memory boards, disk expansion utilities, new PS/2 and AT-compatible 386/486 computers, and lap-top computers. Keeping an ongoing collection of the most useful, self-supporting DOS utilities for users was continued. Several user advice handouts about common concerns and problems, including preparing mailing labels and setting up Laser Jet III Printers, were prepared or updated.

- o Consulting in ordering microcomputer hardware and software. Staff was given state-of-the-art hardware specifications for purchases of PS/2 or AT-compatible computers.
- o Devising simple programs, methods, and user documentation for automatic file backups on standalone computers with specialized PC Tools software, DOS BACKUP, and procedures internal to WordPerfect 5.1.
- o The use of software for the Institute Employee Performance Management System was coordinated: downloading and uploading pools, monitoring pool composition and payouts, and executing awards.
- o Planning OCC migration from dedicated work processing equipment to a microcomputer-LAN environment.
- o Installing and configuring hardware and software. Providing technical assistance to users who experienced an increasing number of disk crashes and miscellaneous software-hardware failures as their microcomputers aged.
- o Executing the OD Performance Management and Recognition System awards model and analyzing the awarding patterns in the pool to determine whether to split the pool.
- o Assisting OCC in defining ADP and contracting requirements for its support contract and reviewing capability statements of potential contractors.
- o Assisting NCI staff in using such NIH mainframe facilities as DIALOG.
- o Reviewing the HHS proposal for a time and attendance system and preparing comments.
- o Supporting transfer of data between Macintosh and IBM-compatible systems.
- o Assisting NICHD with the Personal Services Forecasting System software.

WordPerfect 5.1 Support

MISB continued with this support, including the installation of software and macros. To resolve user problems, lists of WordPerfect "bugs" and program updates were prepared. WordPerfect add-on products and utilities were evaluated for their usefulness and made available.

Applications Support

MISB continued to develop, maintain, and enhance custom software for Institute microcomputer and mainframe users. Routine maintenance, responding to user questions and problems, training users, and offering applications support was provided for the following.

- o Modifying the PMB Employee Training System to offer an electronic alternative to the HHS 350 training form. The proposed system required the addition of fields, new report options, and new ways to track data. A risk analysis was conducted to determine additional security requirements.
- o Conducting a survey to determine user needs for tracking the progress of intramural and extramural minority programs. Preliminary recommendations for a systems design were developed, requirements under the Privacy and Paperwork Reduction Acts were researched, and assistance was provided to obtain necessary clearances. Other NIH automated systems for collecting data on minority programs were evaluated for their potential.
- o Determining the requirements and developing the specifications for a system to assist the Institute Assistant Director in monitoring staff compliance with the requirements for financial disclosure, ethics training, outside activities, etc.
- o Developing alternate hardware-software platforms and approaches for phased implementation of the Pay Computation System.
- o Enhancing the Grant Application Logging System for new reporting procedures to reduce computer charges. New reports and data fields were developed, and procedures for updating were improved.
- o Modifying PMB SF-52 Tracking System to offer remote printing and to help users upload data to the mainframe.
- o Modifying the Request for Application Tracking System to fit the new DEA recording structure and reporting methods.
- o Adding summary and detailed reports of overtime data to the OD Full Time Equivalency System. Other reports and on-line screens were modified to enhance data presentation.
- o Modifying the DCBDC Visiting Program Financial Report System for the new format of the FY 1991 data provided by the Financial Management Branch. Modifying PMB's Open Continuous Announcement System to simplify deleting and modifying data. Modifying the NCI Personnel Data System to accept a larger salary field. Setting up several reports and report modifications for the DEA and OD Financial Data Report Systems.

Information Resources Management Activities

MISB coordinates the Institute's IRM activities and represents the Institute in many IRM-related activities, including the Office Technology Coordinators

(OTCs), the Personal Workstation Branch's Lead Users program, the Automated Information Systems Security Program, and the NIH-IRM Council.

Accomplishments

- o Preparing an ADP procurement clearance review report for each NCI division and a summary report documenting the Institute's internal ADP Clearance Review, conducted by NCI clearance officials. A corrective action plan for improving the Institute's application of ADP procurement clearance policy and procedures was developed. Internal NCI procedures were revised to help with the clearance and internal review processes.
- o Preparing the Institute's FY 1992 Information Technology Systems Financial Budget and FY 93 IRM Strategic Plan. Developing additional strategic planning guide for more consistent format and content in the submissions from reporting NCI organizations.
- o Coordinating the prioritizing of LAN applications proposed by NCI administrative staff and established work groups to determine NCI standards and policies in developing LAN applications.
- o Coordinating the Institute update of the HHS Applications System Inventory and the submission of Contingency Plans for systems designated as highly sensitive or highly critical.
- o Taking part in OTC review of the Administrative Data Base and recommending changes.

Personnel Management Branch

Chief: Marianne S. Wagner

PMB is responsible for the Institute's central personnel management services, including policy development, employee development and training, work force planning, recruitment, salary administration, and equal employment opportunity (with the NCI EEO Officer).

- o With the increase in candidates who want to join the Institute as PHS Commissioned Corps Officers, there has been a corresponding increase in personnel management services. Because this trend is expected to continue, PMB has centralized the services for Corps personnel by establishing a Commissioned Corps Unit to offer efficient and high-quality services to the Institute's officers.
- o To continue to streamline paper-intensive processes, the PMB Training Office has designed a new form to replace the HHS-350 Training Nomination and Authorization. The form, which documents individual employee participation in group training courses, is a nine-page manifold containing 34 fill-in blocks. The new form is one page with only 14 blocks and significantly reduces the paperwork and time required to document such training.

- o The Training Office also streamlined the paper process for documenting the status of approved training with the "Employee Training Status" form. The new form is used to document and evaluate completed group training and to document canceled or incomplete group training. This form has eliminated the need the nine-page manifold form HHS-350 for documenting incomplete or canceled training.
- o Recognizing the need to conserve on resources and improve personnel service, PMB began using the PHS Work Force On-line Data System in March 1991. This system offers on-line access to historical and current personnel and pay information, gives FTE information for the current fiscal year, and can be queried to produce standardized or customized reports. While there are other systems that offer on-line access to these types of information, this system is the only on-line system that contains historical personnel and pay information. This system enabled PMB to eliminate an outmoded system, which required manual recording of about 7,300 annual individual personnel and pay actions. Access to the PHS system was granted to Institute administrative offices for their respective program areas.
- o PMB developed a handbook for personnel, administrative, and program staff that contains personnel action flow charts. These charts depict the sequence of events in the review, processing, and final approval of an action for several special appointment authorities. Accompanying each chart is detailed information on the timeframes, required paper work, and procedures that effect various types of actions. The handbook is a useful training and reference tool.
- o PMB restructured the Operations Section into two more effective components: the Intramural Operations Section and the Extramural and Commissioned Corps Operations Section.
- o PMB started a project to develop standard position descriptions and evaluation statements for several frequently advertised positions that were similar or identical in assignment and level of responsibility. Eleven occupations, covering 19 different grade levels, and more than 360 employees were identified for the first phase of the project.

Research Contracts Branch

Chief: John P. Campbell, Jr.

RCB takes part in developing policies for the Institute research contract programs; develops guidelines, procedures, and controls to promote compliance with policy and sound contracting practices; offers contract management services for all Institute research contracts; and sets up automated Institute contract management systems.

Supercomputer Acquisition

Upgrading acquisition of the supercomputer facility at Fort Detrick was completed in July 1991, with a contract awarded to TAI Incorporated.

Automated Systems

All Requests for Proposals must be advertised in the Commerce Business Daily, published by the Department of Commerce and used to inform the private sector of all Government purchases. Because it usually takes 10 to 14 days to publish a notice (adding to the lead time), RCB has contracted for a Department of Commerce on-line system called CBD Express. Notices are published within a day after transmission, reducing some of the lead time associated with awarding contracts.

New Procedures

RCB, with representatives from the NIH Division of Contracts and Grants (DCG), Division of Computer Research and Technology (DCRT), and the Division of Research Grants (DRG), is investigating the possibility of adding research contracts to the Administrative Data Base (ADB). If possible, ADB will allow the automatic obligation of contracts; review, verification, and approval of vouchers; and payment by Accounts Payable. So far, the results of the study have shown that, with the present ADB technology, the research contract data can not be incorporated into the database. The committee has decided that a new system is needed and is defining the requirements for the system.

Pilot Test of Printing Support

The pilot program mentioned in last year's report has been very successful. Of the 69 awards made last calendar year, 57 were under \$25,000 and took an average of 10 days to complete; the 12 awards over \$25,000 took an average of 23 days to complete. Compared to previous years, time was considerably reduced and the publishing costs did not exceed what the Government Printing Office would have charged. Not only were substantial savings in administrative costs realized, but also 100 percent of the awards were made to small businesses.

Local Area Network

Computers in the office of the branch chief and in the offices of the section heads have been connected to the Executive Plaza network. All other LAN boards and cables have been purchased, and when a new server is installed, the remaining RCB staff will be connected to the network.

OFFICE OF INTERNATIONAL AFFAIRS

Associate Director: Federico Welsch, M.D., Ph.D.

As mandated by the National Cancer Act, NCI supports an active international program for researching, treating, controlling, and preventing cancer in the United States and abroad. The Institute's international program, coordinated by the Office of International Affairs (OIA), is in concert with that of NIH, the other NIH institutes, and the Fogarty International Center (FIC). This program is involved in cancer research and training a) through bilateral and multilateral agreements; b) through the direct awarding of grants and contracts to scientists at foreign institutions, by any of the four NCI research divisions (DCBDC, DCE, DCT, and DCPC) or other NCI offices; and c) through activities for distributing information worldwide.

The Institute also fosters relationships with such international cancer research organizations and agencies as the European Organization for Research and Treatment of Cancer (EORTC), the International Agency for Research on Cancer (IARC), the International Union Against Cancer (UICC), the Organization of European Cancer Institutes (OECI), the Pan American Health Organization (PAHO), the World Health Organization (WHO), and others. The goal of collaborative cancer research between NCI and its international counterparts is to improve the quality and quantity of health services for millions of people throughout the world.

Cancer research, and for that matter biomedical research, is conducted worldwide. It is supported by governments, industry, private non-profit institutions, and private individuals. The results of this research are usually published in scientific literature which is available to the public. Most of the collaboration in cancer research is among individual scientists of the developed world; most of it is informal. There are no reliable records that could measure the research contributions that evolve from the exchange of information among investigators. Everyone agrees, however, that it is substantial. Therefore, NCI--which at any one time supports some 2,300 intramural research scientists and staff, some 670 visitors, and some 5,000 extramural grants, contracts, and training awards--dedicates part of its resources to promoting such international cooperation. There is substantial cooperation between scientists of English-speaking nations and scientists of other developed nations but naturally less between U.S. scientists and scientists from either developing countries or non-English speaking nations. It is the latter that receives most of OIA's attention.

Formal cooperative research programs fall under the aegis of either government-to-government agreements (science and technology or health agreements) or institute-to-institute agreements. NCI takes part (Table I) in many of the 73 bilateral agreements NIH has with 39 nations--directly with organizations in 10 countries and indirectly (through NIH-FIC) with institutions in another 18 countries. Direct bilateral participation is with institutions in Egypt, France, Germany, Hungary, Italy, Japan, Korea, the People's Republic of China, Poland, and the Soviet Union. Participation through FIC-NIH is with institutions in Australia, Belgium, Brazil, Chile, Colombia, Czechoslovakia, Finland, Ghana, India, Israel, Mexico, Romania, Spain, Taiwan, Turkey, Yugoslavia, Uganda, and Zimbabwe. NCI participation with institutions in many other countries is managed through international organizations.

Scientists around the world send natural products and chemicals to be screened in the NCI automated in vitro human tumor cell line assay for antineoplastic and anti-AIDS properties. During the fiscal year, samples were received from many countries: Australia, Cameroon, the Central African Republic, Indonesia, Japan, Malaysia, Nepal, New Zealand, the Philippines, Tanzania, Thailand, and 13 countries in Central and South America.

NCI's bilateral scientific programs contribute significantly to the international health policy of the United States, which must transcend its borders when dealing with a global health problem such as cancer.

Bilateral Activities

Australia

NCI collaborates with several Australian institutions, including the Walter and Eliza Hall Institute of Medical Research in Melbourne. Projects supported by NCI include studies of oncogenes in hematopoietic differentiation and neoplasia; differentiation of granulocytes and macrophages; self-renewal in normal and leukemic hemopoietic stem cells; oncogene-induced leukemogenesis in transgenic mice; and the role of human IL-3 in normal and leukemic cells. The Australian Institute of Marine Sciences (AIMS) of Townsville sends the NCI drug screening program novel marine organisms from the Indo-Pacific region, particularly from the Great Barrier Reef. These organisms are potential sources of new anticancer and anti-AIDS chemotherapeutic agents.

OIA cosponsored the "Hanson Symposium" on October 24-26, 1990, on the occasion of the inauguration of the Hanson Centre for Cancer Research in Adelaide.

Under the sponsorship of the NIH Visiting Program, 15 Australian scientists were brought to NCI laboratories.

Belgium

NCI and Belgian scientists collaborated on the expression of metastasis-associated genes in gynecological cancer patient specimens. The NCI Liaison Office to EORTC is in Brussels.

Under the sponsorship of the NIH Visiting Program, four Belgian scientists were brought to NCI laboratories.

Brazil

NCI and Brazilian scientists collaborated on the molecular biology of Burkitt's lymphoma in Brazil. The NIH Visiting Program brought six Brazilian scientists to NCI.

Bulgaria

When visiting NCI in 1991, the Bulgarian Minister of Health received materials to set up a project in Sofia for distributing CD-ROM-based cancer information. The minister is also the director of the cancer center in Sofia. The NIH Visiting Program sponsored two of his students at NCI.

Canada

Collaborative activities with Canadian institutions involve the following topics: cell proliferation and liver carcinogenesis; mechanisms of nitrosamine alkylation of DNA and RNA; multidrug resistance and p-glycoprotein; human melanoma metastasis; effects of prostate cancer on skeletal tissue; new markers for the detection and evaluation of bladder tumors; inhibitors of glycosyltransferases; and the synthesis of clinical investigational drugs against cancer and AIDS.

The Community Intervention Trial for Smoking Cessation (COMMIT) is being conducted in 22 communities in the United States and Canada. This trial, which targets heavy smokers, pairs 11 American communities and 11 Canadian communities. Following a baseline survey in 1988, one community from each of the 11 pairs was randomly selected to receive an intervention protocol for four-year smoking cessation. The trial results will be central to the efforts for expanding community-based smoking control activities across North America.

The NIH Visiting Program brought 14 Canadian scientists to NCI.

Chile

NIH and Chilean scientists collaborated on breakpoint locations in Chilean Burkitt's lymphoma cases, on multidrug resistance, and on making PDQ accessible through BITNET and other electronic networks. The NIH Visiting Program brought one Chilean scientist to NCI.

China

Some collaborative epidemiological and intervention trials are being conducted in China under contracts awarded by NCI research divisions. One of the larger studies uses multivitamin-mineral supplements to evaluate the relation between such supplements and esophageal cancer.

Exchanges of 4 scientists took place under the bilateral agreement, and 74 Chinese scientists were sponsored by the NIH Visiting Program.

Colombia

NIH and Colombian scientists collaborated on molecular genetic analyses of lymphoma and Hodgkin's disease on Colombian cases. The NIH Visiting Program brought one Colombian scientist to NCI.

Czechoslovakia

Under the OIA program, five scientist exchanges took place, and many more exchanges were made directly between American and Czechoslovakian laboratories. NCI and Slovak scientists are cooperating on the genetic control of DNA repair in mammalian cells and on the expression of new proteins in leukemic patients.

Denmark

NCI supports research, conducted by Danish scientists, on "Cancer in the Opposite Breast following Radiotherapy." The NIH Visiting Program brought five Danish scientists to NCI.

Egypt

The U.S. Agency for International Development (USAID) has entered into a Participating Science Agreement (PASA) with Egypt's Office of International Health (OIH). The U.S. Public Health Service funds the US-Egypt Joint Working Group on Health Cooperation. The agreement supports clinical and epidemiological studies on non-Hodgkin's lymphoma and leukemia in Egypt and a project using epirubicin before and after radical cystectomy in treating carcinoma of the bilharzial bladder.

OIA was responsible for coordinating a project for PHS that deals with "Genetic Counseling and Genetic Disease Resources in Egypt" for PHS. American investigators visited Cairo to establish the computer facility for the project.

The NIH Visiting Program brought one Egyptian scientist to NCI.

Finland

A DCPC contract with the National Public Health Institute in Helsinki supports epidemiological studies on nutrition and cancer. The objectives are (1) to assess the role of fats, selenium, and vitamins (A, E, and C) in breast cancer development and (2) to evaluate the relationship of various nutrients to subsequent breast, colon, and lung cancers.

DCT's Radiation Research Program is funding research for developing sophisticated planning tools for radiotherapy treatment to aid the physician and physicist. The program CARTES (Computer Aided Radiation Therapy Expert System) was developed at the Technical Research Center of Finland in Tampere. It is now being installed at the University of Washington in Seattle to be evaluated for clinical use.

The NIH Visiting Program brought five Finnish scientists to NCI.

France

Our formal cooperative efforts are through the French "Institut National de la Sante et de la Recherche Medicale" (INSERM) and "Centre National de la Recherche Scientifique" (CNRS). Cooperation continues particularly with the Institute Gustave Roussy in Villejuif and with the Institute Pasteur in Paris, two of the premier comprehensive cancer centers in France.

Informal cooperative efforts between NCI intramural and extramural scientists (particularly scientists at the Institute's 62 designated cancer centers) and their counterparts at 20 French centers involve many more people than the formal arrangement does. In some cases, the French "Association pour la Recherche sur le Cancer" has supported such collaborations. The association has made the Institute's Physicians Data Query database available in French through minitel phone terminals.

OIA sponsored NCI-French collaborations for establishing human renal carcinoma cell lines and prolactin receptor expression in normal and DMBA-induced mammary tumors in rats.

The NIH Visiting Program brought 25 French scientists to NCI.

Germany

Investigators at the German Cancer Research Center (Deutsches Krebsforschungszentrum) in Heidelberg are collaborating (1) with scientists at Georgetown University to develop mucosotropic vaccines against HPV and (2) with scientists at the University of Arizona in Tucson on the over-expression of the tumor growth factor beta gene in malignant squamous cell carcinoma cells.

Under the sponsorship of the NIH Visiting Program, 37 German scientists worked at NCI. Under OIA sponsorship, 5 American scientists took part in an epidemiology workshop entitled "Medical Statistics - Statistical Models for Longitudinal Data" in Oberwolfach, February 24-March 2, 1991. The reunification of the two Germanies has created uncertainties for institutions in the former East Germany, perhaps affecting the initial relations established between NCI and those institutions.

Ghana

The director of the Ghana Cancer Research Foundation visited the Institute and the American Cancer Society headquarters in Atlanta on December 10-29, 1990, to become acquainted with each institution and to be advised on ways to further cancer research in Ghana.

Hungary

Under the bilateral agreement, three Hungarian scientists visited American laboratories to collaborate with their counterparts on surgical procedures for the upper esophageal tract, for liver transplantation, and for the modulation of cytolytic T cells by immunologically active agents.

The NIH Visiting Program brought 20 Hungarian scientists to NCI.

Central and East European scientists who have not had the opportunity to interact with their Western counterparts were sponsored by OIA at an international cancer and AIDS meeting in Budapest on June 12-14, 1991.

India

NCI investigators collaborated with the Indian Council on Medical Research (ICMR) and with cancer centers in Bangalore, Bombay, and Madras on treatment protocols for lymphoblastic leukemia and non-lymphoblastic lymphomas. Two additional projects, one on the molecular epidemiology of cancer and another on the carcinogenicity of Indian tobacco products, are funded at the Tata Memorial Center by the US-India Fund for Cultural, Educational, and Scientific Cooperation (USIF).

Exchange scientists, under OIA's bilateral program, came from the University of Delhi, the Kidwai Memorial Institute of Oncology in Bangalore, and the Cancer

Centers in Madras and Calcutta. The NIH Visiting Program brought 47 Indian researchers to NCI.

The Cancer and Palliative Care Unit at WHO, the Kidwai Memorial Institute in Bangalore, Johns Hopkins University Cancer Center, and the OIA are collaborating to expand a cancer pain control program in India.

Israel

NCI and the US-Israel Binational Science Foundation are planning a workshop on "New Cancer Treatment Strategies Based on Molecular Biology" for FY 1992. Several Israeli institutions, including the Weizmann Institute, have joined NCI in projects on tumor invasion and angiogenesis; on the P53 cellular tumor antigen; on estrogen-induced changes in breast cancer; on control of gene expression in tumor viruses and cells; on monoclonal antibodies to human multidrug resistance; and on neonatal phototherapy and childhood malignancy.

The NIH Visiting Program brought 23 Israeli scientists to NCI.

Italy

A joint EORTC-NCI workshop entitled "Neoplasia in the Elderly" (Table II) was held in Venice on October 15-16, 1990. Under OIA sponsorship, five American scientists took part. Another biotechnology workshop dealt with tumor suppressor genes. Researchers at the Instituto Nazionale per lo Studio e la Cura dei Tumori in Milan are evaluating, for DCT, the effectiveness of N4-hydroxyphenyl retinamide (4HPR) in preventing new primary lesions of the contralateral breast in breast cancer victims.

The US-Italy Science and Technology Agreement was renewed in Rome for a three-year period on November 19, 1990.

There were 2 Italian but no American scientific exchanges this year; 89 Italian scientists worked at NCI under the sponsorship of the NIH Visiting Program.

Jamaica

In this country, the Institute sponsors research on "Human T-Cell Leukemia/Lymphoma Virus in Jamaica." The NIH Visiting Program brought 1 Jamaican scientist to NCI.

Japan

NCI has agreements with the Japan Society for the Promotion of Science (JSPS) and with the Japanese Foundation for Cancer Research (JFCR). The agreements cover four program areas: cancer etiology, cancer biology and diagnosis, cancer treatment, and an interdisciplinary area.

Eleven workshops were held under the auspices of the bilateral agreement with the JSPS (Table II). For cancer etiology, the workshops dealt with carcinoma of the prostate, cancer risk assessment of environmental chemicals, and hepatitis C. For cancer biology and diagnosis, the workshops covered signal transduction and gene regulation, lymphocytic adhesion and its related signal transduction, and molecular mechanisms of oncogenesis and tumor progression.

For cancer treatment, the workshops covered current treatment strategies of lung cancer, new anticancer and antimetastatic drugs, and the role of growth factors in cancer treatment. For the interdisciplinary area, the workshops covered the pathogenesis of renal cancer and transplacental and transgenerational carcinogenesis.

Eleven Japanese scientists visited American laboratories for short periods, with support from the granting agency. Six more came to NCI-supported laboratories for longer periods, with funding provided by the NCI-JFCR agreement. Three Japanese scientists visited NCI under the "Comprehensive 10-year Strategy for Cancer Control Program of Japan (Nakasone Program)." There was also an exchange of the following two chemicals between Japanese and American scientists: 2-amino-3,4-dimethylimidazol [4,5-f] quinoline and 2-amino-3,4,8-trimethylimidazol [4,5-f] quinoxaline.

The 14th joint US-Japan Steering Committee meeting was held in Okinawa on July 1-2, 1991. Six Japanese and six Americans took part. On July 2, faculty from Ryukyus University (Island of Okinawa) attended the meeting. After the meeting and at the invitation of the JSPS, the OIA director site-visited the most prominent Japanese cancer centers.

There is extensive collaboration between the United States and Japan in Boron Neutron Capture Therapy (BNCT), particularly for the treatment of malignant brain tumors and melanomas. Another collaborative effort, in Nagoya, involves the modulation of liver fluke-associated neoplasia.

The NIH Visiting Program brought 118 Japanese scientists to NCI.

Korea

NCI has a bilateral agreement with the Korea Academy of Medical Sciences (KAMS). The fourth steering committee meeting was held in Seoul on June 27, 1991, and a joint workshop on the conduct of cancer chemotherapy clinical trial was held on June 28. Two Korean exchange scientists collaborated with their American counterparts on photodynamic therapy in bladder cancer and on developing new drugs for the treating prostate cancer.

The NIH Visiting Program brought 27 Korean scientists to NCI.

Mexico

NIH has agreements with the Center for Research and Advanced Study (CINVESTAV) and the National Medical Center of the Mexican Social Security System (IMMS). The President of the Mexican Health Foundation and OIA staff discussed possible collaborations when they met in Washington, D.C. on March 27-28, 1991, under NAS sponsorship. NCI arranged one Mexican exchange under the bilateral agreement.

The NIH Visiting Program brought one Mexican scientist to NCI.

Mongolia

On a visit to NCI, the Minister of Health of Mongolia received a free subscription to the NCI databases PDQ and CANCERLIT to set up a project for

distributing cancer information in Utanbaatar. Since the incidence of hepatitis is very high in this country, the risk of liver cancer is greater.

New Zealand

NCI sponsors research on radiosynthesizing agents in this country.

Poland

NCI cooperates with the Maria Sklodowska-Curie (MSC) Memorial Institute of Oncology in Warsaw and with its subsidiaries in Cracow and Gliwice. Some US-Polish research projects were identified for collaboration and for funding from a Special Foreign Currency Program (MSC Joint Fund II), administered by the Joint Commission. Three Polish scientists came to U.S. laboratories under the agreement, and one U.S. scientist visited Poland.

An NCI project for distributing CD-ROM-based cancer information was started in Warsaw last fiscal year; the project continued this fiscal year. There have been discussions to explore the possibility of installing the U.S. CancerFax system in Poland.

The NIH Visiting Program brought eight Polish scientists to NCI.

Romania

Before the end of the fiscal year, two Romanian exchange scientists are scheduled to arrive in the United States. The NIH Visiting Program brought one Romanian scientist to NCI.

Soviet Union

This program continues to receive many more requests than can be accommodated. "Glasnost" and "perestroika" have opened the gates of the Soviet Union, and scientists who have been long isolated want to visit their western colleagues.

At the All-Union Cancer Research Center (AUCRC) in Moscow, two trials using 5-fluorouracil or fluorouracil and leucovorin in treating colorectal carcinomas and one using granulocyte colony stimulating factor (G-CSF) during adjuvant breast cancer treatment are progressing satisfactorily. A fourth trial on photodynamic therapy of bronchogenic carcinomas may be undertaken. Discussions between the U.S. and Soviet participants in these clinical trials took place at the 1991 ASCO-AACR meetings in Houston and at the chemotherapy meetings in Berlin.

Collaboration between U.S. and Soviet scientists in the field of stereotactic charged-particle radiosurgery is progressing. This technique is useful for the treatment of intracranial tumors and arteriovenous malformations (AVMs).

An NCI project for distributing CD-ROM-based cancer information was started at AUCRC in 1990. It was reasonably successfully in FY 1991, when a second system was set up in Kiev in the Ukraine.

Under the exchange program, 34 Soviet scientists visited American laboratories, and 4 Americans visited Soviet facilities. The agreements with USSR and

individual republic academies of sciences are yielding higher qualified candidates than those previously proposed by the USSR Academy of Medical Sciences.

The NIH Visiting Program brought four Soviet scientists to NCI.

Spain

Informal cooperation continues on signal transduction pathways activated by growth factors and their subversion in human cancer; on evaluating high-dose chemotherapy regimens followed by autologous bone marrow transplantation as therapy for patients with acute lymphoblastic leukemia or malignant lymphomas; on elucidating the cell biology of Ewing's sarcoma and related primary tumors; and on other projects.

Under the sponsorship of the NIH Visiting Program, ten Spanish scientists worked at NCI; two scientist exchanges took place during the fiscal year.

Sweden

NCI sponsors Swedish studies on malignant behavior and cellular antigen expression; on target sites and genetic control in NK and LAK cells; on regulation of malignant and normal cells by NK cells; on EBNA and other viral products in EBV-transformed cells; on immune effector mechanisms in EBV carrying patients; on hormonal regulation of liver carcinogenesis; on structure and function of the TCDD receptor; and on binding and metabolism of toxic agents in the prostate.

The NIH Visiting Program brought three Swedish scientists to NCI.

Switzerland

No cancer research scientist exchanges took place during the fiscal year. Nine Swiss nationals worked at NCI under the sponsorship of the NIH Visiting Program. Two grants were awarded to Swiss institutions for research on "NGO Participation in National Cancer Plans" and "Project on the TNM Classification of Malignant Tumors."

Taiwan

Exchange of information continues on endemic diseases in Taiwan: hepatitis B, nasopharyngeal carcinoma, and T-cell leukemia. NCI, the National Taiwan University Hospital, and the National Science Council of Taiwan are starting their collaboration. OIA staff site-visited the most prominent cancer research institutes of Taiwan to prepare for intensified joint activities.

The NIH Visiting Program brought seven Taiwanese scientists to NCI.

Tanzania

A previous DCPC contract with the Muhimbili Medical Center in Dar Es Salaam supports chemoprevention studies of skin cancer in albinos. The results of this research are now being examined.

Trinidad

NCI funds a contract with the PAHO-Caribbean Epidemiology Center for research on the "Epidemiology of Human T-Cell Leukemia-Lymphoma Virus." The NIH Visiting Program brought one scientist from Trinidad-Tobago to NCI.

Turkey

Last fall, the First Lady and the Minister of Health of Turkey sought NCI support for cancer research. Since then, OIA has trained the designated Turkish coordinator in cancer registries, has accepted six Turkish exchange scientists, and has sent an American team to Turkey on a fact-finding mission. Projects for issuing CD-ROM-based cancer information have been set up in Istanbul and Ankara.

The NIH Visiting Program brought three Turkish scientists to NCI.

Uganda

Forty-five percent of the patients in Muhago Hospital in Kampala have tested positive for HIV, making this area fertile for studying the pathogenesis of secondary lymphomas in HIV-infected individuals. Collaboration has started between NCI scientists and scientists at the Uganda Cancer Center in Kampala. The director of the center visited NCI during the year and received the materials for distributing CD-ROM-based cancer information in this country.

United Kingdom

Cooperation continues with British scientists, particularly in the fields of radiation and radiotherapy. Clinical trials on fast neutron therapy have long been supported at three U.S. academic institutions and Clatterbridge Hospital. These U.S.-supported trials are the only ongoing phase III studies in the world designed to evaluate the use of neutrons in treating prostate, lung, and head and neck cancers.

Discussions were held with the United Kingdom Coordinating Council for Cancer Research (UKCCCR) to enlist British citizen participation in NCI's Clinical Oncology Fellowship Program and other programs. The NIH Visiting Program brought 35 British scientists to NCI.

Yugoslavia

Relations have been established with cancer centers in Belgrade, Ljubljana, and Zagreb. The first six exchanges took place during the year. The U.S.-Yugoslav Joint Foreign Currency Program supports a study on clinical bone marrow transplantation in Zagreb.

The NIH Visiting Program brought five scientists from Yugoslavia to NCI.

A projected for distributing CD-ROM-based cancer information was established in Belgrade; it will be self-supporting within the year.

Zimbabwe

Contacts have been established with the University Medical Center in Zimbabwe to set up a National Cancer Plan with WHO and a project for CD-ROM-based cancer information distribution. The NIH Visiting Program brought one scientist from Zimbabwe to work at NCI.

Multilateral Organizations

EORTC

The DCT collaborative program with EORTC and the Cancer Research Campaign in U.K. is still highly successful in consistently supplying new compounds for the anticancer screening and an increasing number of new drugs for Phase I and II clinical evaluations. Participating cancer centers are the Swiss Cancer Center in Bellinzona; the Daniel den Hoed Cancer Center in Rotterdam; the Free University and the A. van Leeuwenhoek Tumor Center in Amsterdam; the Denmark Finsen Institute in Copenhagen; the Institute for Cancer Research in Sutton, Charing Cross Hospital in London, the Paterson Institute for Cancer Research in Manchester, and the Universities of Edinburgh and Glasgow.

Through an interagency agreement with the Department of State, the NCI operates a liaison office in Brussels, Belgium, at the Catholic University of Louvain. EORTC brings together 2,000 European cancer specialists, in 250 institutions, to form a single working team. The EORTC Data Center provides the statistical and data processing services required for state-of-the-art clinical trials.

The primary screening of European compounds for antitumor and anti-AIDS activity has been transferred from Europe to FCRC. The four EORTC branches-- Cancer Treatment, Cancer Education, Cancer Research, and Cancer Epidemiology and Prevention--are headed by NCI collaborators who were formerly NCI fellows or grantees. EORTC provides NCI early access to the results of cancer research supported by the European Economic Community (EEC).

The NCI-EORTC program sponsored five long-term scientist exchanges in U.S. laboratories during the year.

IARC

IARC, a WHO-affiliated organization, receives a regular budget from 16 member states: Australia, Belgium, Canada, Denmark, F.R.G., Finland, France, Italy, Japan, The Netherlands, Norway, Sweden, Switzerland, U.K., U.S., and U.S.S.R. It is also one of the most successful non-U.S. institutions competing for NCI grants and contracts.

OIA represented NCI at the 32nd Session of the IARC Governing Council meeting. The present director was reappointed for a two-year term. A Search Committee was set up to find a successor.

Among the projects supported by NCI is the publication of a monograph series evaluating the carcinogenic risk of chemicals to humans. These "IARC Monographs" are widely used as authoritative sources of information (but not

necessarily the only ones) by governments and regulatory bodies in different countries.

OIA administers a DCE contract that partially funds the publishing of the "Directory for Ongoing Research in Cancer Epidemiology," formerly a cooperative project of NCI, IARC and DKFZ.

OECI

OECI was founded in 1978 to foster cooperation between cancer centers of EEC and COMECON countries. With the democratization of the former COMECON countries, interaction between the directors of the premier European Cancer Institutes has intensified. OIA represented NCI at OECI's General Assembly, held in Manchester, U.K. on May 12-14, 1991. OECI members were shown the Institute's PDQ and CANCERLIT databases on CD-ROM and the new NCI CancerFax system.

PAHO

PAHO is the recipient of an OIA contract that contributes to the support of the Latin American Cancer Research Information Project (LACRIP). During FY 1991, about 3,300 subscribers received copies of a selective research service. The service, which is available through PAHO's Regional Biomedical Library (BIREME) in Sao Paulo, Brazil, and seven national subcenters in Argentina, Chile, Costa Rica, Cuba (no U.S. Government funds), Mexico, Peru, and Venezuela, is shifting to CD-ROM technology. Subscribers requested and received copies of 16,000 original articles on cancer research and prevention.

Cancer Information Dissemination projects based on CD-ROM technology will be available to cancer centers in Nicaragua and Panama.

In a joint project with NLM, OIA, and PAHO, CancerFax may be available in Spanish in 1991, and PDQ may be accessed in Latin America through the academic network BITNET using the BITNIS software.

Other Latin American activities were initiated in FY 1991 to strengthen collaborative efforts between the United States and Latin American and Caribbean scientists: a workshop on "Opportunities for Collaborative Cancer Epidemiology Research" was held in Bethesda, September 11-12, 1991. Fourteen U.S. and sixteen Latin American and Caribbean scientists will take part.

Scientists from the United States, Argentina, Mexico, and Uruguay met at the 1991 ASCO-AACR meetings to discuss the possibility of conducting parallel clinical trials in their respective countries.

UICC

UICC, based in Geneva, is a worldwide organization with more than 250 members from 84 countries.

NCI contributed to the support of the UICC Committee for International Collaborative Activities (CICA), the UICC Detection and Diagnosis Program, and UICC's Fellowship and Personnel Exchange Program.

A project involving nongovernmental organizations (NGO) to develop National Cancer Plans in countries without these plans has been initiated under DCPC support. "NGO in the Development of National Cancer Plans" met in Singapore.

The UICC Detection and Diagnosis Program received NCI funding for a project on the TNM (tumor, nodes, and metastases) classification of malignant tumors. The Fellowship and Personnel Exchange Program received partial funding for International Cancer Research Technology Transfer (ICRETT) fellowships.

Table I
Active Bilateral Agreements

<u>Country</u>	<u>Science & Technology</u>	<u>Health</u>	<u>NIH</u>
Australia	1968	--	
Belgium	--	--	NIH-FNRS 1984
Brazil	1971	--	
Bulgaria	--	--	NIH-BMA 1986
Canada*			
Chile*			
Colombia*			
China	1979	1979	NIH-CAS 1983
Czechoslovakia	1986	--	
Denmark*			
Egypt	1975	1975	
Finland	--	1982	
France	--	1982	NIH-INSERM 1984 NIH-CNRS, 1979 NCI-MORT 1981
Germany	--	1976	
Ghana*			
Hungary	1977	--	NCI-NIO 1981
India	1974	--	NIH-CSIR 1986
Israel	1972	1980	
Italy	1967	1977	
Jamaica*			
Japan	1980	1965	NCI-JSPS 1973 NCI-JFCR 1988 NCI-KAMS 1988 NIH-CINVESTAV 1985
Korea	1976	--	
Mexico	1972	--	
Mongolia*			
New Zealand*			
Poland	1972	1973	NCI-IO 1976
Romania	1974		
USSR	1972	1972	NIH-USSR Academy of Sciences 1990
Spain	1976	--	
Sweden*			
Switzerland*			
Taiwan	1980	--	NIH-NSC 1983
Tanzania*			
Thailand	1984	--	NIH-CRI 1989
Trinidad*			
Turkey*			
Uganda*			
United Kingdom*			
Yugoslavia	1973		
Zimbabwe	1980		

*Informal

Table II
OIA-NCI Co-Sponsored Workshops
FY 1991

<u>Program</u>	<u>Dates</u>	<u>Location</u>	<u>Title</u>
US-Australia	Oct. 24-26, 1990	Adelaide	Hanson Symposium on Cancer Research and Treatment
US-Germany	Feb. 24-Mar. 2, 1991	Oberwolfach	Statistical Models for Longitudinal Data
US-Italy	Oct. 15-16, 1990	Venice	Cancer Chemotherapy and Aging
	Oct. 11, 1990	Rome	Tissue Engineering
US-Japan (B&D)	Oct. 10-12, 1990	Bethesda, MD	Signal Transduction and Gene Regulation
	Nov. 7-10, 1990	Osaka	Lymphocyte Adhesion
	Jan. 17-18, 1991	Kauai	Molecular Mechanisms of Tumor Progression
US-Japan (E)*	Feb. 18-20, 1991	San Francisco	Prostatic Carcinoma
	Mar. 14-15, 1990	Kauai	Risk Assessment of Environmental Carcinogens
	Mar. 11-12, 1991	Kauai	Hepatitis C
US-Japan (I)	Nov. 12-13, 1990	Okayama	Treatment of Lung Cancer
	Feb. 9-10, 1991	Hawaii	Antimetastatic Drugs
	Mar. 18-19, 1991	Napa Valley	The Role of Growth Factors in Cancer Treatment
US-Japan (I)	Nov. 13-14, 1990	Hawaii	Transplacental and Transgeneration Carcinogenesis

<u>Program</u>	<u>Dates</u>	<u>Location</u>	<u>Title</u>
	Feb. 18-19, 1991	Honolulu	Pathophysiology of Renal Cancer
US-Korea	July 28, 1991	Seoul	Chemotherapy Clinical Trials
US-USSR	May 21-23, 1991	Cambridge	Proton Therapy Cooperative Oncology Group
Multilateral	Feb. 12-13, 1991	Bethesda, MD	Cancer Prevention
	June 12-14, 1991	Budapest	Cancer and AIDS in the East and West
	May 23-25, 1991	New York	International Cancer Patient Data System
	May 17-18, 1991	Houston	Clinical Trials in Latin America
	May 10-14, 1991	Manchester	NCI Databases on CD-ROM
	May 8-9, 1991	London	International Programs of the US-NCI and UK-CCCR
	Sept. 11-12, 1991	Bethesda, MD	Cancer Epidemiology in Latin America

* An additional workshop was canceled because of the Gulf War.

Table III
FY 1991 OIA-NCI Sponsored Scientist Exchanges

<u>Country</u>	<u>American</u>		<u>Foreign</u>		<u>Total</u>	
	No.	Pers. Mo.	No.	Pers. Mo.	No.	Pers. Mo.
Belgium	0	0	1	3.0	1	3.0
Brazil	0	0	1	2.0	1	2.0
Chile	0	0	2	7.0	2	7.0
China	0	0	8	34.0	8	34.0
Colombia	0	0	1	3.0	1	3.0
Czechoslovakia	0	0	2	17.0	2	17.0
Egypt	1	0.5	3	0.75	4	1.25
France	0	0	1	5.0	1	5.0
Germany	0	0	3	20.0	3	20.0
Ghana	0	0	1	0.5	1	0.5
Hungary	0	0	4	11.0	4	11.0
India	0	0	8	20.5	8	20.5
Italy	0	0	2	11.0	2	11.0
Japan	1	0.75	11	6.5	12	7.25
Korea	0	0	2	14.0	2	14.0
Mexico	0	0	1	0.25	1	0.25
Poland	0	0	2	7.0	2	7.0
Romania	0	0	1	0.25	1	0.25
Soviet Union	4	2.0	34	81.5	38	83.5
Spain	1	2.5	1	6.0	2	8.5
Turkey	3	4.0	6	12.0	9	16.0
Uganda	0	0	1	0.25	1	0.25
Yugoslavia	0	0	6	7.75	6	7.75
E-W Workshops	4	1.0	19	4.75	23	5.75
NCI-EORTC	0	0	6	66.0	6	66.0
NCI-JFCR	0	0	6	72.0	6	72.0
TOTAL	14.0	10.75	133.0	413.0	147.0	423.75

TABLE IV
FOREIGN SCIENTISTS AT NCI
UNDER THE NIH VISITING PROGRAM
FY 1991

Algeria	1	Japan	118
Argentina	12	Korea	27
Australia	15	Malaysia	1
Austria	8	Malta	1
Bahamas	1	Mexico	1
Belgium	4	Netherlands	11
Brazil	6	New Zealand	2
Bulgaria	2	Nigeria	2
Canada	14	Norway	3
Chile	1	Pakistan	1
China	74	Panama	1
Colombia	1	Peru	1
Costa Rica	1	Philippines	2
Czechoslovakia	5	Poland	8
Denmark	5	Romania	1
Egypt	1	Saudi Arabia	2
Ethiopia	1	Singapore	1
Finland	5	Soviet Union	4
France	25	Spain	10
Germany	37	Sweden	3
Greece	8	Switzerland	9
Guyana	1	Taiwan	7
Hungary	20	Trinidad and Tobago	1
India	47	Turkey	3
Iran	2	United Kingdom	35
Ireland	4	United States	1
Israel	23	Venezuela	2
Italy	89	Yugoslavia	5
Jamaica	1	Zimbabwe	1

TOTAL 670

INTERNATIONAL CANCER INFORMATION CENTER

Associate Director: Susan M. Hubbard

The International Cancer Information Center (ICIC) collects and distributes scientific data on all research related to cancer biology, etiology, prevention, and treatment. These responsibilities include collecting, cataloging, storing, and distributing the results of clinical and preclinical cancer research to people involved in cancer research in any country. Using available technology, ICIC actively promotes the exchange of information between cancer researchers and develops more effective ways of distributing scientific information to cancer researchers and practicing physicians throughout the world.

ICIC consists of the Office of the Director, the International Cancer Research Databank Branch (ICRDB), the Computer Communications Branch (CCB), the Scientific Publications Branch, and a Marketing Office. Responsibilities of the staff in the Office of the Director are to plan, direct, coordinate, promote, and evaluate the activities and operations of Institute's scientific journals, monographs, on-line databases, and special database-derived publications. These products and services (1) are geared for the need for current information on the advances in cancer research and (2) constitute the Institute's centralized resource for scientific information.

International Cancer Research Databank Branch

Chief: Gisele A. Sarosy, M.D.

Established by the National Cancer Act of 1971, ICRDB has developed a comprehensive range of technical information services and products for distributing cancer research information to scientists and practicing physicians around the world.

Major Information Resources

Computer databases (CANCERLIT and PDQ) are updated monthly to enable scientists and other health professionals to retrieve cancer information at more than 100,000 locations worldwide. Three specialized, database-derived publications--CANCERGRAMS, ONCOLOGY OVERVIEWS and RECENT REVIEWS--contain abstracts of published cancer research results in special formats designed for quick reference.

CANCERLIT

This database is a comprehensive archival file of more than 800,000 bibliographic records, most with abstracts describing cancer research results published since 1963 in biomedical journals, proceedings of scientific meetings, books, technical reports, and other documents.

During FY 1991, CANCERLIT grew at an annual rate of more than 60,000 abstracts. Since 1980, all entries in CANCERLIT have been indexed with the NLM Medical Subject Heading (MeSH) vocabulary. The database is updated monthly to give a comprehensive, current accounting of published cancer research results.

Physician Data Query (PDQ)

This database is the Institute's comprehensive cancer treatment database. PDQ consists of four interlinked files: cancer information and literature, clinical protocols, a physician directory, and an organization directory. Developing and updating the contents of the cancer information and protocol files and keeping high standards of quality control are major responsibilities of ICRDB.

Cancer Information File

This file contains prognostic and treatment information on the major types of cancer in children and adults, including information on AIDS-related malignancies. For each major disease, there are two kinds of statements. One is a state-of-the-art statement on prognosis and treatment for health care professionals. Key citations to the scientific literature are referenced, and abstracts of these citations are available for the user to review. The other is a patient information statement, which specifies treatment options in terms understood by patients and their families. A limited number of brief statements on rare cancer diagnoses are also in the file.

The PDQ Editorial Board of one oncology nurse and about 30 cancer specialists in medicine, radiology, surgery, and pediatric oncology review the state-of-the-art statements each month. The current cancer literature is screened monthly for select articles for the Board to review. When articles are selected for citing in the PDQ database, the statements may be revised. The ten Board pediatric oncologists meet to revise the statements pertaining to pediatric cancer. A special panel led by the Board oncology nurse also drafts statements on supportive care that concern managing disease and treatment-related complications.

An Extramural Board of about 75 oncology specialists, supplementing the expertise of the PDQ Editorial Board, is consulted bi-yearly. These specialists are also consulted on an ad hoc basis throughout the year when controversial or highly specialized issues pertaining to their areas of clinical expertise are deliberated by the core Board.

Major enhancements to the Cancer Information File included the addition of supportive therapy statements for pruritus, for nausea and vomiting, and for long-term effects of cancer therapy in children. A new state-of-the-art statement for AIDS-related lymphoma was also added. The childhood rhabdomyosarcoma statement was rewritten.

Following extensive discussions with intramural staff and an External Advisory Board of outside consultants in patient education and communication, the new format for patient information summaries was further refined. The patient information statements for all the adult cancers were rewritten in this new format during FY 1990 and placed on-line. The pediatric statements were also completed.

Protocol File

This file contains more than 1,300 summaries of active protocols supported by NCI as well as protocols voluntarily submitted by U.S., Canadian, and Western

European investigators. A major revision of the coding of treatment modalities and supportive care protocols was completed. CLINPROT, an archival file containing summaries of more than 7,800 treatment protocols, including more than 6,500 closed foreign and domestic protocols, was incorporated into PDQ. All active foreign protocols previously listed only in CLINPROT were reviewed, and the majority of these studies were incorporated into the file. Subsequently, CLINPROT was discontinued in March 1991.

As of July 1991, 39 standard therapy protocols were on-line in the file and 3 more were being developed. These protocols instruct in administering regimens of proven efficacy and describe dose and schedule, clinical and laboratory monitoring, and dose modification. Standard protocols are standard therapies listed in the state-of-the-art statements, written by ICIC contractors and staff in protocol format from the original protocol and the publications on its use in cancer patients. The protocols are reviewed and approved by the PDQ Editorial Board. There are now standard protocols for breast cancer, Hodgkin's Disease, non-Hodgkin's lymphoma, multiple myeloma, gestational trophoblastic tumor, gastric carcinoma, pancreatic carcinoma, testicular cancer, prostate cancer, ovarian germ cell tumor, small cell lung cancer, colon cancer, islet cell cancer, and ovarian cancer.

Formatting of the protocol entry criteria was revised to include entry requirements and exclusions in a predefined order so screening the list will be easier for readers. All new protocols entered after March 1991 adhere to this revised format and existing protocols are being rewritten to conform to the new format.

Physician Directory

This directory consists of more than 16,000 names, addresses, and telephone numbers of physicians who devote a major portion of their clinical practice to treating cancer patients.

Organization Directory

This directory consists of more than 2,300 institutions that offer care for cancer patients.

PDQ News

PDQ News has now become an official file of the PDQ database. The News file is now included on the distribution tape that licensed vendors mount on their computer systems each month. Previously, short PDQ news items and other related issues in oncology could only be accessed from the NLM computer. Specifications have been developed for making the news part of the integrated PDQ tape sent to all PDQ licensees. ICRDB staff is responsible for collecting or writing all PDQ News items and for deleting the items no longer of interest. News items include information on Cancer Information File updates, indexing changes, PDQ user support materials, NCI drug information, and NCI-issued clinical updates. Further expanding and refining this file is planned for FY 1992.

User Documentation

A major revision of the PDQ User Guide for the NLM version of PDQ was released in August 1990. ICRDB developed the substance of the Guide with the ICIC Director and the CCB and Marketing Office staffs. The Guide was finalized by a contractor with experience in creating user manuals. The finished product is a very professional publication, offering the most comprehensive information on PDQ use. It contains both basic information for inexperienced users and information on advanced searching techniques for experienced searchers, as well as a table of contents, appendices, indexes, and background information. For the first time, the User Guide is being sold through the National Technical Information Service, and ICRDB expects to offer regular updates to subscribers. With the User Guide, subscribers also receive the PDQ ACCESS software developed by ICRDB to help with accessing the NLM version of PDQ. The Guide will be revised in FY 1992 to reflect new enhancements.

To complement the User Guide, a PDQ Quick Reference Guide was also published using the same format and design as the User Guide. This guide is free and available on the NLM system to all PDQ users and assists experienced users in searching PDQ more effectively.

The PDQ Terminology Listing, first published during FY 1989, was updated and reprinted in March 1991. ICRDB staff worked with CCB staff to create a method of automating the generation of most of the PDQ terminology file. The list, arranged with lists of terms for PDQ indexing information, is designed to help all PDQ users retrieve information, regardless of the PDQ implementation being used. Everyone receiving the terminology listing is asked to mail a reply card for regular updates issued every six months.

PDQ ACCESS Software

PDQ ACCESS, a telecommunications program for IBM microcomputers, was produced by ICRDB and released in November 1987. This program automates the connecting and the downloading of information from the PDQ database on the NLM system. It also captures expert search strategies contained in PDQ and automatically performs a CANCERLIT search, returning the PDQ user to the Cancer Information File menu. Thus, PDQ ACCESS allows untrained searchers to select and execute more than 250 predefined searches of the CANCERLIT database as an adjunct to PDQ searching. Sold separately through the National Technical Information Service until May 1990, PDQ ACCESS is now included with the purchase of the PDQ User Guide.

PDQ ACCESS was modified, and the new Version 2.0 was sent to more than 1,000 users in June 1991. This mailing was necessary to accommodate the NLM conversion to the Virtual Telecommunications Access Method (VTAM) of telecommunications. Initially, it was thought that the change to VTAM would not affect PDQ ACCESS, but by mid-May, it was apparent that the previous version of PDQ ACCESS, Version 1.0, would be not work. After the software was written and tested, new disks with installation instructions were reproduced. The packages were sent by overnight mail, arriving before the evening of June 28, when VTAM became effective. The new software contains several improvements, including an easier set-up, 2400 baud access, additional communication serial ports, and a direct link to the user's word processor.

Database Access

As of June 1991, more than 35,000 domestic and 4,000 foreign centers have access to the cancer databases on the MEDLARS system. Over 3,500 student codes are also effective. There are 16 principal foreign MEDLARS centers that offer access to MEDLARS databases for foreign medical institutions and physicians. Fourteen (including the Pan American Health Organization) offer access to CANCERLIT, and ten offer access to PDQ.

CANCERLIT and PDQ have become widespread and are increasingly available through the commercial on-line CD-ROM and on-site, in-house computer systems. Commercial and educational institutions, both nationally and internationally, have become increasingly interested in licensing the databases from NCI. This year, one new license agreement was issued for PDQ, bringing the total number of vendors to fifteen; several more licenses are pending. In the United States, PDQ is available on-line through Maxwell On-line's BRS SEARCH, a command-language system; through BRS COLLEAGUE, a menu-driven system; and through MEDIS, a service of Mead Data Central. CANCERLIT is available on-line through DataStar, DIALOG, and Maxwell's BRS Information Technologies.

Outside the United States, PDQ is available through the following: the TELMED system in Switzerland (MEDINET and PHARMANET components); Medimatica, a videotext-based version based in Holland; MEDARC in France, which offers the PDQ state-of-the-art treatment statements in French; and EuroCODE, the electronic network of the European Organization for Research and Treatment of Cancer (EORTC). The West German Institute for Documentation and Information in Medicine (DIMDI), a major MEDLARS center, offers CANCERLIT to its system users and plans to add PDQ to its menu-driven system later this year. Maxwell On-line (BRS) offers both CANCERLIT and PDQ throughout the world, via dedicated telecommunications links between major foreign cities and the BRS data center in Chicago. CANCERLIT is also available internationally through DIALOG. Both CANCERLIT and PDQ can be searched at the U.S. MEDLARS centers from virtually any place in the world by accessing the dedicated telecommunications lines of INFONET, the parent company to COMPUSERVE.

On-site availability of a database enables the licensee to offer the database from its own in-house computer to system users. The database, including search software, is offered to organizations, mostly nonprofit medical centers, for mounting on mainframe, mini, or micro computers. Commercially, Maxwell On-line, through a "BRS On-site Agreement," provides CANCERLIT coupled with the BRS search software to the University of Texas M.D. Anderson Cancer Center. The University of Tsukuba in Japan offers CANCERLIT to its medical community via on-site tapes. A PDQ version based on the MUMPS programming language (developed by DCPC-NCI) is licensed to Georgetown University, George Washington University, the State University of New York (SUNY) at Buffalo, the Veterans Administration, and Johns Hopkins University. A MUMPS/PDQ license is pending with the University of Texas in Houston, and a C/PDQ license is pending with the Andalusian Health Service in Seville, Spain. The Ministry of Health in Singapore offers PDQ to its medical community, via on-site tapes.

PDQ and CANCERLIT are also available via SearchLITE, a proprietary retrieval system developed under an NCI-SBIR contract by IS Grupe, an Illinois firm. EORTC's EuroCODE search service in Europe uses the SearchLITE software for

PDQ. PDQ and CANCERLIT are available in CD-ROM (compact disc read-only memory) versions from several commercial vendors. Cambridge Scientific Abstracts offers three separate CD-ROM products: CANCERLIT, PDQ, and a combination of both CANCERLIT and PDQ on one disc. SilverPlatter has merged three sources of cancer literature abstracts into a single comprehensive database called CANCER-CD. The file consists of recent years of CANCERLIT and two other producers of medical information, EMBASE (the Excerpta Medica database) and the Yearbook of Cancer. J.B. Lippincott offers OncoDisc, a CD-ROM product that includes PDQ, recent years of CANCERLIT, and third edition of Cancer: Principles and Practice of Oncology (DeVita, et. al.), Important Advances in Oncology (DeVita, et. al.), and Manual for Staging of Cancer (Beahrs-American Joint Committee on Cancer). Aries Systems offers CANCERLIT on Knowledge FinderTM, a CD-ROM product for the Macintosh computer. CD-Plus offers CANCERLIT from 1984 to the present on CD-ROM disk. At least two other companies are developing CD-ROM versions of PDQ or CANCERLIT, which will be available soon for testing. A third company is developing a PC hard-drive version of PDQ.

As part of an initiative to increase the distribution of information in Eastern Europe, a free subscription to a commercial CD-ROM product containing PDQ and CANCERLIT is being offered to cancer centers in the following Eastern European countries: East Berlin, Germany; Bratislava, Czechoslovakia; Kiev and Moscow, USSR; Sofia, Bulgaria; Budapest, Hungary; Warsaw, Poland; and Belgrade, Yugoslavia. CD-ROMs have also been sent to Bombay, India, and Uganda. Thirty-five additional subscriptions are expected to be delivered by December 1991. These organizations serve as cancer information dissemination centers, enabling ICIC to issue current data on cancer research and present standards of patient care to new and, until now, largely unreachable audiences.

In spring 1990, NLM's popular telecommunications package, GRATEFUL MED, was modified (Version 5.0) to permit easy access to CANCERLIT by untrained searchers and direct access to PDQ. In 1991, an updated MeSH vocabulary was added to GRATEFUL MED (Version 5.05). All 250 CANCERLIT search strategies in PDQ can be executed in CANCERLIT by typing the name of the stored search strategy followed by (SN).

Database Usage

PDQ and CANCERLIT usage has continued to grow. In FY 1991, the Cancer Information Service, previously the largest user of the NLM PDQ, switched to searching PDQ on CD-ROM. As a result, PDQ use on the NLM system averaged 608 hours through April of FY 1991, compared with the FY 1990 average of 1,240 hours per month. However, on-line use of PDQ at NLM by all users except Cancer Information Service (CIS) offices continued to grow. In March 1991, 1,005 separate users totaled 673 hours--the highest number of separate users in any month since the inception of PDQ (a 33% increase in user codes over April 1990).

During FY 1991, software was developed to track PDQ use on CD-ROM. In April 1991, the CIS offices reported 535 PDQ hours on CD-ROM, a 23% increase over the previous month. However, the CIS offices also use hard-copy to access information in the state-of-the-art statements, which may be a substantial source of use. Efforts are underway to develop a comprehensive

method of tracking the use of PDQ through all ways of accessing the database, including data from the Institute's CIS (which uses both CD-ROM and hard copy); such on-line systems as NLM, EORTC, and Maxwell/BRS; commercial vendors of CD-ROM products, foreign NCI-supported CD-ROM demonstration projects, CancerFaxTM, and on-site implementations at single institutions using the MUMPS or C version of PDQ.

The increasing use of PDQ reflects major efforts by ICIC staff to promote the value of PDQ. BRS also reported increases in PDQ usage. The use of other vendor systems (BRS, MEAD, Medimatica, MEDARC and Georgetown) has added about 450 hours per month to the total NLM usage.

CANCERLIT is distributed principally among three international on-line vendors--NLM, BRS, and DIALOG, accounting for 52%, 22%, and 26% of the total use each month, respectively.

More than 80% of PDQ usage at NLM probably represents searching for physicians by intermediaries or by physicians themselves. About 15% of PDQ usage represents training, testing, and administrative use. Thus, the actual percentage of NLM PDQ search output used by physicians is not known, but it probably exceeds 85%. Furthermore, physicians are more likely the ultimate users of most of the searches done on other vendor systems.

Service Desk

The PDQ Service Desk, staffed by ICIC, offers information and technical assistance to PDQ users and to people requesting information on other ICIC databases and publications.

PDQ User Group

During FY 1988, a User Group for all searchers of PDQ on any system was formed to improve communications between the producers of the database and the direct users of the system. A newsletter describing new PDQ developments and announcing upcoming events was sent to the more than 1,000 members of the User Group in December 1990. At the Medical Library Association meeting in San Francisco in June 1991, ICRDB staff presented the first training session for librarians to earn continuing education credits. Basics of searching all major vendor systems were presented.

ICRDB and the ICIC Marketing Office has established a policy with NLM in which a flyer about PDQ will be included with each mailing of Grateful Med software. The flyer announced the availability of the PDQ Quick Reference Guide and invited PDQ users to become members of the PDQ User Group. As a result, the PDQ User Group membership has quadrupled this year, and many of the more than 2400 members are physicians and health care professionals. The PDQ User Group continues to be an important vehicle for increasing awareness of PDQ, for distributing information about new database enhancements, and for receiving feedback about the database that is helpful when planning new enhancements.

International Cancer Information Center Library

The branch also maintains the International Cancer Information Center Library, a collection of journals and books for NCI staff. Copies of more than 60 journals are received, including many of the cancer journals; abstracting and indexing secondary sources; and chemical, biomedical, or information science journals of special interest to ICIC personnel.

Publications

In addition to its databases, ICRDB publishes three publications.

CANCERGRAMS...a series of 22 monthly database-derived publications, each containing abstracts of recently published articles and other documents describing research results in diagnosis and therapy. Abstracts are selected and categorized by researchers active in the field covered by each CANCERGRAM topic. There are about 4,000 paid CANCERGRAM subscriptions. ICRDB staff continues to work with the Marketing Office to increase the awareness of these publications and to supplement the limited marketing effort of the Government Printing Office.

ONCOLOGY OVERVIEWS...retrospective bibliographies containing 200-500 abstracts-citations of papers published on key cancer research topics in the preceding few years. Five ONCOLOGY OVERVIEWS were published in FY 1991.

RECENT REVIEWS...annual, fully-indexed compilations of the abstracts of 250-400 major review articles cited in the monthly "Notice of Current Reviews" section of each CANCERGRAM series. A volume is published as a supplement to the CANCERGRAMS once a year.

As part of an initiative to increase information dissemination in Eastern Europe, free CANCERGRAMS, ONCOLOGY OVERVIEWS, and RECENT REVIEWS are being sent to key medical libraries and academic institutions in more than 200 in Eastern European, South American, Asian, African, and Middle and Far Eastern places.

Special Activities

Staff Presentations and Publications

ICRDB members have made formal presentations at the semi-annual Cancer Information Service meeting in North Carolina; at the annual meeting of the Indiana Health Sciences Library Association; at the annual meeting of the Medical Library Association; to the Division of Cancer Prevention and Control; and to the contractor staff giving technical support to the Cancer Therapy Evaluation Program.

Staff members have written brief articles or news items for the NLM Technical Bulletin, the PDQ User Group Newsletter, and other promotional materials. ICRDB personnel also contribute to ICIC exhibits at medical society meetings and meetings of information dissemination professionals, particularly where database demonstration or in-depth understanding of the content of the databases is required.

Education, Training, and Other Information Activities

ICRDB has been engaged in several projects for increasing PDQ awareness, for attracting new PDQ users, for educating current and potential users in the ways to use PDQ, and for finding ways to issue PDQ information to underserved areas.

ICRDB began developing a curriculum for the educating current and potential users of the PDQ database. The first prototype for a more extensive training curriculum was offered as a 4-credit Continuing Education course for medical librarians at the Medical Library Association Annual Meeting in San Francisco. The course included a history of the PDQ database, database content and structure, searching techniques, and indexing terminology. Evaluation of the prototype is underway, and an expansion of the curriculum and revision of training materials are being developed.

To increase PDQ and CANCERLIT awareness for end-user searchers who access these databases through the NLM interface, a series of articles is being developed for Gratefully Yours, the bi-monthly magazine distributed to over 30,000 Grateful Med users. The articles are geared for PDQ users and focus on special features of PDQ and CANCERLIT databases.

To evaluate the extent and diversity of PDQ users, the ways PDQ is used in different environments, and the use of PDQ information, ICRDB is conducting interviews with different types of PDQ users--medical librarians, public librarians, and oncologists in rural and urban settings. Results of the interviews are being collected and analyzed to isolate the approaches best suited to increase awareness and use of PDQ among different user populations. This analysis will also be used in developing education and training materials for different types of users.

Using PDQ information as an educational tool to improve communications among the primary care physicians, the patients, and the oncologists or surgeons is another activity. ICRDB is studying the possibilities for an educational program offering PDQ information to the primary care physician through direct access to the database via modem or through other media such as CancerFaxTM.

The Cancer Information Dissemination and Analysis Center (CIDAC) functions as a resource for information on clinical research in cancer. CIDAC is staffed by scientists and a network of cancer research consultants who have the expertise for preparing CANCERGRAMS and ONCOLOGY OVERVIEWS, as well as for providing other services. CIDAC can provide background information and state-of-the-art data used by NCI advisory groups, consensus conferences, and other scientific meetings.

Title: ICRDB Document Announcement and Dissemination Services

Contractor's Project Director: Louisa Day

NCI Project Officers: James W. Carter
Sheri Bell-Rehwoldt

Objectives:

This agreement supports the billing, collecting, and crediting of fees from leasing ICRDB databases to private organizations and commercial vendors and from the sales of other cancer-related information products produced by NCI. It also enables National Technical Information Service (NTIS) to act as the collection agency (1) for the charges incurred by NCI use of access codes for on-line searching of cancer databases on the NLM computer system and (2) for such other charges for information services provided by NCI as billing for the new, revised PDQ User Manual.

Major Accomplishments:

NTIS credited more than \$40,000 to the ICRDB-NTIS deposit account during the first six months of the fiscal year. PDQ ACCESS (diskette and user manual) was sold through NTIS until May 1990. In August 1990, the sale of the new, revised PDQ User Manual, version 3.0, which contains PDQ ACCESS, began. About 800 copies have been sold at \$34.95 per copy.

Significance to Institute Mission:

This interagency agreement has assisted ICRDB in fulfilling its mandated responsibility, the broad dissemination of research information on cancer.

Proposed Course:

ICRDB expects to continue using NTIS billing and accounts handling services for database usage and leasing and access software distribution and, in future years, may choose to use additional printing and tape reproduction services.

Date Agreement Initiated: September 30, 1976

Current Annual Level: \$100,000

ATLIS Federal Systems, Inc. NCI-CO-64088

Title: Clinical Protocols Analysis and Tracking (CPAT)

Contractor's Project Manager: Dr. Grace Cannon

NCI Project Officer: Jennifer Ricks

Objectives:

To establish and operate a Cancer Research Project-Protocol Analysis Center. This entails preparing protocol abstracts of clinical trials for cancer treatment and dose modification information; keying and formatting this information for input to computer-based information systems; and maintaining a current listing of participating institutions and investigators.

Major Accomplishments:

ATLIS prepared new protocol summaries on about 550 protocols. The protocol master file grew from 7,782 to more than 8,350 summaries. The number of protocols with dose modification screens increased to more than 650.

The number of standard therapy protocols, which are written by ATLIS staff and reviewed by the PDQ Editorial Board, rose to 39.

Major revising of the coding of therapy modalities and supportive care protocols was completed. The review of all active foreign protocols previously listed in only CLINPROT was also accomplished, and the majority of these studies were included in PDQ. Letters sent to the protocol chairmen of all closed foreign protocols listed in CLINPROT asked if the chairmen wanted their protocols reviewed for listing in PDQ.

Work began on transferring the protocol processing from the protocol contractor to the ICIC computer. After the conversion, all protocols will be kept on the ICIC computer rather than sent monthly via tape to the computer. This process will be more cost effective, will save processing time, and will give ICIC more control over the protocol data entered in the PDQ system. The contract was extended for 5.5 months so that this work can be completed by the ICIC Computer Support Contractor (CSC). ATLIS has assisted CSC in developing the logical design of the new system.

Significance to Institute Mission:

The CPAT project offers cancer researchers detailed summaries of clinical cancer trials in the United States and other countries that accruing patients. The CPAT project also offers detailed summaries of closed clinical trials throughout the world. The protocol file facilitates the referral of patients to ongoing clinical trials.

Date Contract Initiated: June 16, 1986

The contract was renewed for 4 years in June 1987 and extended for 5.5 months in June 1991.

Current Annual Level:

The contract was budgeted for \$920,357 for FY 1990 and received an additional \$704,000 at the end of FY 1990 for restoration of FY 1989 short funding.

INFORMATION VENTURES, INC. N01-CO-84348

Title: Cancer Information Dissemination and Analysis Center (CIDAC) for Cancer Diagnosis and Therapy

Contractor's Project Director: Dr. William Creasey

NCI Project Officer: James W. Carter

Objectives:

CIDAC provides necessary scientific input to produce information products and services for cancer researchers and guides ICRDB in cancer diagnosis, therapy, and rehabilitation.

Major Accomplishments:

CIDAC publishes 22 CANCERGRAMS monthly, 5 ONCOLOGY OVERVIEWS annually, and 1 RECENT REVIEW, a categorized compilation of abstracts of cancer diagnosis and therapy, annually. This CIDAC performs custom searches of the CANCERLIT and PDQ databases for physicians and other health care professionals; submits monthly Highlight Reports, pinpointing significant new developments in clinical cancer research; and assists in database quality control.

Significance to Institute Mission:

CIDAC is a valuable resource for information on oncology research for NCI and the worldwide cancer research community. The CANCERGRAMS provide rapid but comprehensive coverage of the entire field, alerting researchers to new findings with minimal effort. ONCOLOGY OVERVIEWS enable readers to become easily informed in emerging areas of research or to receive state-of-the-art perspectives on major areas of treatment research.

Proposed Course:

The contractor will continue to produce CANCERGRAMS and ONCOLOGY OVERVIEWS and to provide information services.

Date Contract Initiated: August 30, 1988

Current Annual Level: \$461,527

INFORMATION VENTURES, INC. N01-CO-84338

Title: Screening, Indexing, Abstracting, and Keying of Cancer-related Literature (SIAC)

Contractor's Project Director: Silba Cunningham-Dunlop

NCI Project Officer: James W. Carter

Objectives:

The SIAC project collects, indexes, and keys abstracts on current cancer research presented at meetings. The project also indexes and keys abstracts of books, journal articles, technical reports, and other documents not covered by NLM. These abstracts are part of the source material for CANCERLIT, CANCERGRAMS, and ONCOLOGY OVERVIEWS. Foreign abstracts are translated to English. Abstracts are written when none are included in the publications.

Major Accomplishments:

An average of more than 800 items were processed each month and forwarded to the ICRDB Computer Support Contractor for final reformatting to update the CANCERLIT database. The meeting abstracts are collected from hundreds of such medical conferences as the American Association for Cancer Research, the American Society of Clinical Oncology, and the Federation of American Societies for Experimental Biology. A high level of effort took place from March through June to input several thousand abstracts from these three key meetings held in April and May. As a result, this information was available in the ICRDB databases and publications much earlier than would have been with routine processing. Books, reports, and other documents are collected from hundreds of sources.

Significance to Institute Mission:

The SIAC project provides rapid, easy access to cancer research information presented at meetings and published in other sources not covered by the NLM MEDLINE database. This information can be retrieved by searching the CANCERLIT database in any restricted topic pertaining to cancer or from reading the CANCERGRAMS and ONCOLOGY OVERVIEWS prepared from CANCERLIT by ICRDB contractors.

Proposed Course:

The project will continue for a five-year period. The contract was recently modified to add \$50,000 to continue to screen, index, and abstract a larger number of records than handled previously.

Date Contract Initiated: February 22, 1988

Current Annual Level: \$411,598

Final Date of Contract: February 21, 1993

Title: Joint NLM-NCI Intra-agency Agreement

Contractor's Project Director: Dr. Aaron Navarro

NCI Project Officer: James W. Carter

Objectives:

This agreement provides for (1) the generation, maintenance and operation of the NCI databases and systems (PDQ, CANCERLIT, CLINPROT) on the NLM computer and (2) the issuing of information in these collections to institutions and individual users via the MEDLARS network.

Major Accomplishments:

NLM contributes cancer abstracts (prepared for the MEDLINE database) that are a major component of the cancer literature database, CANCERLIT. NLM also maintains and updates the NCI on-line databases, including CANCERLIT (containing about 800,000 abstracts of published literature). NLM maintains the PDQ database, which contains state-of-the-art information on the diagnosis, staging, prognosis, and treatment of nearly 80 types of cancer; more than 1,300 summaries of standard and investigational treatment protocols; and names, addresses, and telephone numbers of more than 16,000 physicians and 2,300 organizations specializing in cancer treatment. All databases are updated monthly.

Significance to Institute Mission:

Through the MEDLARS system, users at more than 35,000 locations in the United States and 16 other countries are able to rapidly access cancer information stored in the CANCERLINE and PDQ databases. Physicians, researchers, and other health professionals use the information retrieved from searches of these databases to improve cancer patient care and design more productive research experiments.

Proposed Course:

The intra-agency agreement will continue to provide the database input, maintenance, and dissemination services as described.

Date Contract Initiated: May 1, 1983

Current Annual Level: \$815,846

Final Contract Date: September 30, 1992

(Intra-agency agreement was signed in FY 1988 as modification #11 to previous agreement.)

PDQ DATABASE DISTRIBUTION AGREEMENTS

July 1991

<u>Vendor</u>	<u>Type of license</u>	<u>Status</u>
NLM (also Gateway: InfoNet)	On-line	Active
Maxwell/BRS (also Gateways: Telebase Systems, EasyNet; CompuServe/IQuest; Western Union InfoMaster)	On-line	Active
Mead Data Central	On-line	Active
EORTC (Europe) (EuroCODE)	On-line	Active
ARC (France) (MEDARC)	On-line	Active
MediMatica (The Netherlands)	On-line	Active
TELMED (Europe)	On-line	Active
Georgetown University	On-line (on-site)	Active
George Washington University	On-line (on-site)	Active
Johns Hopkins	On-line (on-site)	Active
Veterans Administration Hospital (Washington DC)	On-line (on-site)	Active
SUNY, Buffalo	On-line (on-site)	Active
Singapore Ministry of Health	On-line (on-site)	Active
Cambridge Information Group (via SearchLITE)	CD-ROM	Active
J.B.Lippincott (via SearchLITE)	CD-ROM	Active
DataStar	On-line	Pending
DIMDI (West Germany) (MEDLARS Center)	On-line	Pending
DIALOG	On-line	Pending
Department of Defense	On-line (on-site)	Pending

PDQ DATABASE DISTRIBUTION AGREEMENTS (continued)

July 1991

<u>Vendor</u>	<u>Type of license</u>	<u>Status</u>
Andalusian Health Service	On-line (on-site)	Pending
University of Texas (MDA)	On-line (on-site)	Pending
Fox Chase Cancer Center	On-line (on-site)	Pending
Aries Systems	CD-ROM	Pending
SilverPlatter	CD-ROM	Pending
Inscape	PC/hard-drive based	Pending
Lexical Technologies	CD-ROM	Pending
Teton Data Systems	CD-ROM	Pending

CANCERLIT DATABASE DISTRIBUTION AGREEMENTS

July 1991

<u>Vendor</u>	<u>Type of license</u>	<u>Status</u>
NLM (also Gateway: InfoNet)	On-line	Active
Maxwell/BRS (also Gateways: Telebase Systems, EasyNet; CompuServe/IQuest; Western Union InfoMaster)	On-line	Active
Data-Star	On-line	Active
DIALOG	On-line	Active
University of Tsukuba	On-line (on-site)	Active
M.D. Anderson Cancer Center (through BRS)	On-line (on-site)	Active
Aries Systems	CD-ROM	Active
Cambridge Info. Systems (via SearchLITE)	CD-ROM	Active
J.B. Lippincott (via SearchLITE)	CD-ROM	Active
SilverPlatter	CD-ROM	Active
CD Plus	CD-ROM	Active
Inscape	PC/Hard Drive	Pending
Teton Data Systems	CD-ROM	Pending

The Computer Communications Branch

Chief: Nicholas B. Martin

CCB maintains and operates the ICIC Computer Communications Center, a state-of-the-art multi-computer facility that includes local and wide area communications networks supporting ICIC. CCB manages the PDQ maintenance and production and the CANCERLIT databases, distributing data from these databases to vendors and users of ICIC products and services throughout the world. CCB operates the NLM on-line delivery system for PDQ and supports vendor efforts in database construction and delivery. CCB operates an active research and development program to identify emerging technologies that may enable ICIC perform its mission in the most timely and cost-effective manner. There are four CCB groups that manage these activities.

On-line Medical Systems

This group manages the maintenance and production of the ICIC medical databases PDQ and CANCERLIT, including the monthly distribution of the databases to vendors and users in the United States, Europe, Singapore, South America, and the newly opened Eastern Bloc countries. The group is a consultant in database design, content, and delivery. It maintains the NLM version of PDQ used by medical librarians, researchers, and physicians worldwide. It maintains the MUMPS and 'C' language versions of the database used by smaller medical institutions. It searches for and tests new application software packages that will speed the delivery of ICIC data.

Applications Development

This group develops new systems to meet the ICIC needs and maintains existing systems. It supports the development, implementation and enhancement of administrative applications including the local area network, electronic mail, office automation and desktop publishing. It maintains an inventory of computing equipment within ICIC and manages the upkeep of the equipment. This group searches for and tests new application and system software and hardware that will meet the needs of ICIC staff and contractors. It supports the Office of International Affairs (OIA) in distributing ICIC database subscriptions on CD-ROM to Eastern Bloc and Third World countries.

Research and Development

This group explores the increasingly complex information needs of physicians and other scientists involved in cancer research and treatment and designs computer hardware and software solutions dealing with such needs. These solutions are normally on the cutting edge of information technology and must deal with emerging standards, technology transfer issues, and rapidly evolving trends in cancer treatment and research. This group also deals with innovative ways for supporting research in the Government and is involved with Small Business Innovation Research (SBIR) contracts and Cooperative Research and Development Agreements (CRADAs) in addition to standard research contracts.

Systems and Operations Support

This group installs and tunes new operating systems, database management systems, and other system level software. It provides equipment configuration and tuning and manages the wide-area network that connects ICIC with contractors and users related to ICIC functions. This group also provides computer operations for producing ICIC information products and support for developing new applications.

CCB offers such services as producing mailing labels for the President's Cancer Panel meetings, for special monograph mailings, and for the Cancer Information Service (CIS); conducts PDQ training programs for user groups, CIS Offices, and others; and assists other groups at NCI in ICIC information products and services.

PDQ

A major CCB responsibility is the ongoing production of the PDQ database. Updated monthly, the PDQ database consists of four component files: cancer information, cancer literature, clinical research protocols, and a directory of physicians and organizations.

The PDQ goals are to issue information on the progress of cancer treatment to practicing physicians and to reduce cancer mortality nationwide. To achieve these goals, NCI offers the following PDQ formats.

- o An easy-to-use, menu-based version through the NLM MEDLARS system.
- o MUMPS and 'C' language menu-based versions designed for installation on a wide range of computers in medical facilities.
- o A version containing only the cancer information file in which information can be retrieved from the users' fax machine.
- o A "data only" version that is utilized by commercial time-sharing vendors in the United States and Europe, including the CD-ROM vendors.

Some new data elements-features were added to the database during the past year, including the PDQ News feature, now available to all PDQ vendors; the minority based CCOPs; the fax numbers for all persons in the database; and the built-in procedures for tracking the status of mailers for key persons. The overall size of the database has increased again during the year, this time by about 15 percent. This increase is due to the added amount of information available in state-of-the-art statements and protocols.

The NLM retrieval version of PDQ was improved so users can search more efficiently. These improvements include the addition of dynamically generated treatment modality retrieval screens (this allows new modalities to be added or old modalities to be removed without changes to the database retrieval programs) and the removal of print limits from the protocol printing function.

An initiative to bring the maintenance and distribution of the PDQ MUMPS and 'C' language versions into ICIC began this year. Work is well underway to port these PDQ versions onto a new MUMPS-UNIX workstation procured for this process.

During the year, concept approval to contract for these services was received, and the contract should be awarded by the end of FY 1991. The user interface for these PDQ versions is being modified to closely resemble that of the NLM on-line version, allowing the use of both systems without learning two retrieval systems.

CancerFaxSM, a new information dissemination technology, was unveiled. It allows people who need PDQ cancer treatment information but who do not have access to a personal computer to retrieve such information through their fax machine. This medium of accessing PDQ information is already a success after only a few months.

Each month, CCB staff produces and distributes current PDQ and CANCERLIT data tapes to all vendors licensed by ICRDB. A total of more than 1,300 magnetic tapes are mailed each year. One of these sets of data tapes eventually ends up as the CD-ROM version of PDQ and CANCERLIT for two commercial vendors. Interest in these products continues to grow, and the Cancer Information Service (CIS) offices successfully use one of the CD-ROM versions of PDQ and CANCERLIT to field questions about cancer treatment and research from the public. One of the CD-ROM versions is also being used by Eastern Bloc and Third World countries to provide access to state-of-the-art information about cancer treatment and research. Reporting PDQ usage has become a complex issue as the number of versions of PDQ increases. Reporting on-line use on the NLM and vendor mainframe computers remains straightforward, and CancerFax usage is easily captured and reported. Capturing CD-ROM use is difficult due to the fixed cost of a subscription and the possibility for multiple, simultaneous users. Efforts are underway to collect such statistics at CIS offices and OIA sites. However, evaluating private subscription use is still problematic, but efforts are being made to resolve this.

ICIC Computer Communications Center

The ICIC Computer Communications Center houses two Hewlett Packard 9000, model 850 mid-range computers. These Reduced Instruction Set Computers (RISC) are coupled via a baseband local area network (LAN), then connected to the ICIC broadband LAN, which serves Building 82. This LAN utilizes TCP-IP Ethernet protocols and Ungermann-Bass software. About 50 personal computer and graphics workstations connected to this LAN perform electronic mail, word processing, database management, statistical reporting, graphics, and desktop publishing operations.

The mid-range computers are also connected to ICIC contractors via 56KB digital circuits and to DCRT via a T-1 circuit. Using this wide area network, ICIC personnel can communicate worldwide with users of ICIC scientific information products. During the past year, ICIC users began to access the NIH NUNET, and upgrading the in-house LAN to accommodate such future technologies as transmission of images also began. By the end of the year, we expect to complete the addition of an optical disk storage system to the ICIC computers, which will provide an extra 40 gigabytes of storage to accommodate the growth in the PDQ and CANCERLIT databases.

A MUMPS-UNIX workstation was added to the computer center to help with developing, maintaining, and distributing the PDQ MUMPS and 'C' language versions.

Applications Development

CCB staff began work on a new Manuscript Tracking System (MTS) to be used by the SPB staff. The system will service all levels of users including SPB management, the Editor-In-Chief, senior and associate editors, and administrative staff. It will offer manuscript tracking, production tracking, productivity measurement, and operational statistics. Staff also completed a statistical analysis of 1990 operations to assist SPB management.

Staff worked with OIA on several projects: demonstrating PDQ and CANCERLIT in Manchester, England, and Budapest, Hungary; installing a CD-ROM version of PDQ and CANCERLIT in Kiev, USSR; investigating a computerized Spanish translation of PDQ cancer treatment information for distribution in South America; and developing a pilot project involving the access of PDQ at NLM via the BITNET network from South America. Work is expected to continue on all of these projects.

Staff also used previous research in information dissemination using fax technology and devised a system for distributing PDQ cancer treatment information. Called CancerFax[®], the system, which has been working since January, has topped 100 hours for several consecutive months. CancerFax is a quick, easy way for health professionals to obtain PDQ cancer treatment information without a computer.

Research and Development

R&D staff continued work on developing an Integrated Clinical Workstation for Oncology, which will serve as a prototype for other medical practice fields. The workstation will integrate patient record keeping; access to such medical information-knowledge bases as PDQ and CANCERLIT; the use of expert-decision support software for clinical trials management; and the practice management software for scheduling patients and processing electronic claims. This work is being accomplished via a Phase II SBIR contract.

The staff had the Final Report on An Integrated Oncology Workstation, written by Dr. Edward Shortliffe and the Medical Computing Laboratory at Stanford University, reprinted as a monograph. The monograph was distributed to practicing oncologists at the annual meeting of the American Society of Clinical Oncology this May in Houston, Texas.

R&D staff is exploring a CRADA to market the Integrated Clinical Workstation for Oncology to practicing oncologists, attracting the interest of potential collaborators in the health care information industry: Apple Computers, Digital Equipment Corporation, Hewlett-Packard, IBM, Sun Microsystems, Bristol-Myers-Squibb, CIBA-GEIGY Pharmaceuticals, and others.

R&D staff collaborated with the Agency for Health Care Policy and Research (AHCPR) to develop a Request For Proposals for evaluating PDQ as a model for health care practice guidelines. One staff member wrote the RFP and was the Project Officer during the evaluation of the proposals. Although no contract award was made, offerors were encouraged to resubmit their proposals as grants to the AHCPR.

One of the staff was an advisory member at the Institute of Medicine (part of the National Academy of Science) for a Study of the Computer-based Patient Record and continues to work on policy issues related to a national strategy and implementation plan for the study's recommendations.

Staff made presentations at medical and information technology forums--the MITRE Conference on the Expanding Role of Telecommunications in Health Care, the American College of Radiology Conference on Computer Networks in Radiology Research, and INFORMED'91, a new conference and exhibit focusing on current medical application software products and services for practicing health care providers.

Staff has started two new SBIR research projects: Development and Implementation of a Voice Recognition Interface and Knowledge Server Prototype and Development and Implementation of a Portable Digital Data and Knowledge Base Prototype for Cancer Patients. Proposals for these efforts are due during the last quarter of 1991.

THE CAMPBELL ORGANIZATION, INC. 263-90-C-0245

Title: Installation, Standardization and Documentation of 'C' and MUMPS Version of PDQ Software

Contractor's Project Director: David Campbell

NCI Project Officer: Kent A. Hevner

Objectives:

- o To insure that the NLM version of PDQ is functional in both the 'C' and MUMPS versions.
- o To obtain documented source code for both systems, complete enough for ICIC programmers to understand and maintain.
- o To transfer the operation for producing the 'C' and MUMPS databases onto ICIC computers.
- o To continue to provide the PDQ data and interface software to MUMPS and 'C' vendors and to make any enhancements to the software on an ongoing basis.

Major Accomplishments:

The 'C' and MUMPS versions of PDQ have been modified to include all of the functionality that is available on the NLM system. In some instances, improved methods were discovered, and these enhancements were included not only in both of these systems, but also the NLM version.

The documentation of both systems is now complete enough to be understood by Government programmers and analysts.

The monthly processing of the data to the 'C' and MUMPS format is now being accomplished in the ICIC computer facility.

Significance to Institute Mission:

The National Cancer Act of 1971 mandates that NCI "Collect and disseminate all data useful in the prevention, diagnosis, and treatment of cancer...." This contract makes a substantially improved international distribution of ICIC databases possible and helps the Institute carry out the mandate.

Proposed Course:

The contract ended on May 10, 1991. The final objective will continue under a new contract, currently being negotiated and scheduled to be awarded on September 15, 1991.

Date Contract Initiated: September 10, 1990

Current Annual Level: \$48,335

Title: Computer Support for Cancer Information Dissemination

Contractor's Project Director: Dr. Peter L. Walton

NCI Project Officer: Kent A. Hevner

Assistant NCI Project Officer: Dr. Robert Esterhay, Jr.

Objectives:

This project involves the purchase, installation, and acceptance test of new mid-range computer hardware, operating system software, and database management system software. The project requires database conversion, application software development, and maintenance and support for ICIC databases.

PDQ

PDQ contains data on prognosis, stage information, and treatment options for all major types of cancer. PDQ also contains the names, addresses, and telephone numbers of physicians and organizations specializing in cancer treatment protocols supported by NCI and in all voluntarily submitted protocols from cancer treatment organizations-institutions throughout the United States, as well as in foreign countries.

CANCERLIT

CANCERLIT contains more than 800,000 citations, most with abstracts describing published results of cancer research projects.

The contractor also processes and formats technical publications: CANCERGRAMS, ONCOLOGY OVERVIEWS, and RECENT REVIEWS.

Major Accomplishments:

A News file containing timely information about the PDQ system, news from NCI, and other cancer related news was added to PDQ distribution tapes. A procedure for supplying PDQ data in ASCII format for use by CancerFax was developed. Contractor staff started collecting fax telephone numbers for all persons in the PDQ database to facilitate rapid communications. Converting maintenance procedures for all PDQ databases from a proprietary software package to a standard, off-the-shelf, database management system is almost completed. The contractor added physician rosters from three European cancer organizations, enhancing the international usefulness of PDQ data. The CANCERLIT yearly regeneration and monthly update processes have been completely ported to the ICIC computer center.

DHHS extended the Delegation of Procurement Authority (DPA) ceilings for this contract to accommodate the substantial growth in PDQ databases.

Significance to Institute Mission:

The computer support provided by the contractor is centrally important to the entire spectrum of ICIC products and services. The effective treatment of cancer can be enhanced by distributing state-of-the-art treatment information, reducing the mortality of cancer by shortening the time period in which physicians are informed of improved treatments for cancer.

Proposed Course:

This contract is expected to cover a five-year period, from December 30, 1988, through December 29, 1993.

Date Contract Initiated: December 30, 1988

Current Annual Level: \$1,478,086

SECOND FOUNDATION, INC. N44-CO-05180

Title: Clinical Oncology Workstation

Contractor's Project Director: Dr. Peter L. Walton

NCI Project Officer: Dr. Robert Esterhay, Jr.

Assistant NCI Project Officer: Michael Arluk

Objectives:

The purpose of this phase II SBIR is to develop a production version of the Clinical Oncology Workstation on a UNIX computer workstation platform with the following features.

- Electronic medical record keeping
- Automated acquisition of clinical lab test results
- Remote access to hospital patient data
- Access to knowledge bases and literature via CD-ROM
- Decision support for cancer treatment protocol management
- Access to user-installed PC-DOS software packages

Major Areas of Activity:

The major activities in the work plan for this new project include the following.

- Enhanced outpatient user interface
- Improved use of color and graphics in user interface
- Techniques for acquisition of test results
- Multiple hardware configuration options
- Method for constructing clinical vocabularies
- Enhanced interface options for CD-ROM access
- Protocol selection and patient entry
- Management of protocol-based treatment and follow-up
- Alpha and beta testing at multiple sites

Significance to Institute Mission:

As clinical practice struggles to deal with an increasingly complex set of administrative reporting and fiscal requirements, many practicing oncologists have found it difficult to take part in clinical research. Despite efforts to encourage participation in cancer clinical trials, only a fraction of U.S. oncologists regularly enroll patients in the very trials that are promising for cancer patients. Computing technology offers solutions for dealing with the current chaos in data management, paperwork, and reporting required of all practitioners and for helping physicians take part in formal clinical trials. This contract is to develop a production version of the Clinical Oncology Workstation. It will provide an advanced personal computer that offers an oncologist a wide variety of data-management and decision support tools, many of which run on other computers but which are accessed via networks or telephone-modem connections.

Proposed Course: This contract is expected to end on September 30, 1992

Date Contract Initiated: October 1, 1990

Current Annual Level: \$250,000

Scientific Publications Branch

Chief: Julianne W. Chappell

SPB develops, manages, and reviews scientific periodicals produced by ICIC for health professionals, as part of the information dissemination-technology transfer effort mandated under the National Cancer Act. SPB is, therefore, a major NCI resource for reviewing, distributing, and exchanging scientific information among health professionals throughout the world.

One of the primary branch responsibilities is the Journal of the National Cancer Institute. It is a national publication featuring highly technical articles about original preclinical and clinical research; general articles addressing basic issues in cancer research and treatment; and news items reporting new activities, policies, and practices related to the National Cancer Program. The Journal is published twice monthly and distributed to individuals in the medical and allied communities, at government and private research institutions, and at medical and university libraries in the United States and abroad. SPB also publishes Journal of the National Cancer Institute Monographs, which contains proceedings of conferences and symposia dealing with cancer and closely related fields of research or papers on subjects of importance in cancer research, prevention, or control. Monographs are published up to six times a year.

The printing of CANCERGRAMS, a series of 22 monthly database-derived publications containing abstracts of articles pertaining to specific areas of cancer research, is also managed by the branch.

Editorial Board

The Editorial Board of the Journal of the National Cancer Institute includes the Editor-in-Chief and a 31-member core board of associate editors who are prominent scientists in their respective areas of cancer research. Dr. Daniel C. Ihde is the Editor-in-Chief. The Editor-in-Chief and the Editorial Board are responsible for determining the scientific content of the Journal. An editorial advisory board of 94 extramural scientists also complements the expertise of the core board by providing the scientific knowledge that will enlarge the scope of what is handled by the associate editors. The Branch Chief advises Editor-in-Chief and editorial board on technical and administrative policies.

Manuscript Submissions

An average of 70 manuscripts per month were processed for the Journal. Since the standards for accepting a manuscript are exacting, the rejection rate is high, slightly more than 70 percent. Manuscripts are quickly reviewed so that the author is notified within a short time of the board's decision. Accepted manuscripts are published within three months of the decision to publish. All papers appearing in the Journal are carefully edited by a multidisciplinary audience to maximize their readability.

Manuscript Tracking

All manuscripts are processed by a computerized tracking system and assigned to an associate editor who supervises the peer review process. With this

computerized system for document control, the time in processing manuscripts has been reduced, fewer staff are needed for speeding the process, and tasks are accomplished more efficiently. The system is used to track information on reviewers, on the status of each submission, and on analyses of manuscript actions-decisions. The system is being enhanced to include a reviewer database of potential reviewers by name, specialty, research interests, performance as a reviewer, and current number of manuscripts in review. A post-acceptance tracking system is also being developed. This system will track all the production phases of a manuscript from the editorial process to the printed article.

SPB continues to explore industry-wide methods and techniques for automating and expediting the peer-review and publishing process. Staff members have attended the annual meeting of the Council of Biology Editors and meetings of the Federal Publishers Committee to keep abreast of the developments in scientific and government publishing. Staff members have also attended task force meetings sponsored by the Federal Publishers Committee on Marketing and Promotion, Postal Economy, Periodical Management, and Electronic Publishing. Attending these meetings enables staff to keep up with new Federal policies.

Journal Impact

The Journal has about 10,000 subscribers. Media coverage of published articles is still excellent, more than doubling over last year.

As part of last year's initiative to increase information dissemination in underserved areas of the world, free Journal and NCI Monographs are sent to key medical libraries and academic institutions in Eastern Europe, South America, Asia, Africa, and the Middle and Far East.

The issues are mailed by the printer, eliminating the need to ship the journals to NIH or the Government Printing Office for distribution, significantly saving time and cost. GPO Superintendent of Documents Office keeps the subscriber mailing lists and sends them to the printer before the publication of each issue. Press lists and other distribution lists are kept by ICIC and forwarded to the printer for each issue.

The cost of a subscription is still \$51.00 for domestic subscribers and \$63.75 for foreign subscribers.

Journal of the National Cancer Institute Monographs

The following monographs are being published.

- Consensus Development Conference on the Management of Early Stage Breast Cancer
- ICCCR International Conference on Cancer Prevention: Facts, Maybes, Rumors
- Biology of and Novel Therapeutic Approaches for Epithelial Cancers of the Aerodigestive Tract
- First International Conference on Smokeless Tobacco: Tobacco and Health

Support Contracts

There is one contract for such editorial services as writing, proofreading, and copy editing to support Branch and ICIC activities.

Coverage in Other Publications

The Journal is indexed in the following publications: Biological Abstracts, Chemical Abstracts, Index Medicus, Nutrition Abstracts, Hygiene Abstracts, Biotechnology Abstracts, CIS Abstracts, Current Contents, Dental Index, Index U.S. Government Periodicals, Risk Abstracts, and Excerpta Medica.

GRAMMARIANS, INC. N01-C0-03851

Title: Editorial Services for the International Cancer Information Center

Contractor's Project Director: Mellen Candage

NCI Project Officer: Edwin Haugh

Objectives:

To provide editorial support primarily for the Journal of the National Cancer Institute and all ICIC activities requiring writing, editing, and editorial review services.

Major Accomplishments:

The contractor is being paid for services of its guaranteed productivity standards, and the quality of its services are being monitored and judged on the basis of its quality standards. Should performance fall below the guaranteed quality level, the contractor, under the terms of the contract, must work without Government compensation until the guaranteed quality level is restored.

Significance to Institute Mission:

The services help to maintain the quality and accuracy of the Journal and of other NCI publications. The Journal, a scientific publication of international impact, is one of the Institute's major instruments for distributing scientific information, a function mandated by the National Cancer Act.

Proposed Course:

The contractor will continue to provide editorial services for up to five years.

Date Contract Initiated: June 30, 1990

Current Annual Level: \$160,000

Marketing Office

Director: Jean G. Baum

In its fifth year, the ICIC Marketing Office focuses on the effective distribution of the Institute's scientific information resources, especially the PDQ database and the Journal of the National Cancer Institute. This is accomplished by a variety of marketing activities that target the health professional, for whom such resources were developed.

PDQ

Efforts to market PDQ have been focused on the PDQ Speaker's Kit for Health Professionals, on CancerFaxTM, and on new user tools.

PDQ Speaker's Kit

The PDQ Speaker's Kit for Health Professionals is designed for such cancer care professionals as oncology nurses, patient educators, social workers, and students. After evaluating the initial kit, additional interchangeable modules will be added for physicians and medical librarians. Hopefully, the kit will enable health professionals to use PDQ in their unique setting.

CancerFaxTM

CancerFaxTM was introduced so that the health community could access PDQ cancer information statements. By combining a computer and fax machine, ICIC can send current data on cancer information to any health professional who has a fax machine. CancerFaxTM was developed to make PDQ state-of-the-art treatment guidelines more accessible to physicians, especially those who do not use computers in their clinical practice.

CancerFaxTM was introduced to the medical community with the Clinical Update on Rectal Cancer in March 1991. A special press release was developed with the OGC Press Office and sent to medical media. CancerFaxTM use has grown considerably in the last several months and a major direct-mail promotion of CancerFaxTM to physicians is planned for fall 1991. CancerFaxTM also offers more information about all the PDQ components, how PDQ is available, and news and information on NCI scientific journals and patient education materials.

User Aids

In 1991, the Marketing Office and ICRDB designed many new PDQ user tools to enhance the understanding of PDQ and to increase its use. A new PDQ User Guide was introduced in August 1990. As of June 1991, 800 of the 1,000 guides printed have been sold. Updating the User Guide will begin this summer. Some of the other user tools promoted include the PDQ Wall Chart, PDQ Quick, PDQ Terminology, and PDQ articles.

Journal of the National Cancer Institute

The Journal has become a well-known, highly respected cancer publication because of its contents and rapid publication. Its impact is evidenced by the coverage it receives from the medical and scientific media who regularly

receive the Journal before it is published. During 1990, articles in the Journal were cited 149 times in the popular press (compared to 79 times in 1989), according to the DIALOG Database. As a result, in 1990 more cancer-related newspaper articles were based on information published in the Journal than on any other medical journal.

Throughout most of 1990, the journal was distributed to 10,000 health professionals (about one-half paid subscribers and one-half complimentary recipients). In November 1990, because of budgetary constraints, most of the complimentary recipients were notified that they would be converted to "paid" subscriber status. Between October 1990 and January 1991, 800 complimentary recipients became paid subscribers.

A major direct-mail campaign is underway with the Government Printing Office. Phase I of this campaign began in early 1991, when a promotional letter was distributed to 90,000 cancer professionals, including the 14,000 listed in the PDQ directory. In May 1991, phase II began when the same promotional letter was distributed to 6,000 members of the National Medical Association, continuing with a mailing in July to 4,000 Latin American oncologists. By the end of 1991, after about 300,000 health professionals interested in cancer care will receive the letter, ICIC will have results of that campaign.

Promotional copies of the Journal or reprints of articles were available at the following meetings where ICIC did not have a formal exhibit.

Minority Health Conference (December 1990)
International Conference on Cancer Prevention (February 1991)
Electromagnetic Field Meeting (February 1991)
American Association for the Advancement of Science (March 1991)
American College of Physicians (April 1991)
Southwest Oncology Group (April 1991)
Symposium on Minorities, The Economically Disadvantages and Cancer
(April 1991)
National Minority Cancer Awareness Week (April 1991)
Current Scare Electrophobia (April 1991)
American Federation for Clinical Research (May 1991)
Advanced Training Courses in Cancer (May-July 1991)
American Association of Cancer Research (May 1991)
American Urological Association (June 1991)
Oncology Course, Carnegie Mellon University (June 1991)
National League for Nursing (June 1991)
The Society for Epidemiologic Research (June 1991)

Journal of the National Cancer Institute Monographs

These were promoted in announcements and advertisements in cancer-related publications and by special promotions at meetings where ICIC exhibited its products and services. Special promotional mailings were sent to physicians interested in the topics covered by the Monographs and to the scientific media to increase readership. Each Monograph title is usually sold out by the end of the year.

CANCERGRAMS

New order forms listing the current CANCERGRAM titles were advertised in several cancer-related publications. These forms were also distributed at each meeting where ICIC exhibited.

ONCOLOGY OVERVIEWS

New order forms listing the current titles were advertised in several cancer-related publications and distributed at each meeting where ICIC exhibited. A synopsis of each OVERVIEW was written for a Government Printing Office mailing and sent to the Priority Announcement mailing list. Special letters and an order form were sent to 10,000 health professionals listed in the PDQ Directory. About 350 copies of each OVERVIEW title were printed, an average of 300 copies of each were sold by the end of the year.

Information on subscribing to the Journal and the availability of new publications may be accessed through CancerFaxTM as well.

Cooperative Marketing Activities

The Marketing Office works with such other NIH and NCI offices as the Office of Cancer Communications, the Division of Cancer Prevention and Control, the Office of International Affairs, and the National Library of Medicine to communicate NCI services to target audiences. Other interactions with outside organizations, such as the Federal Drug Administration, also enhance ICIC marketing efforts.

National Library of Medicine

ICIC continues to work with NLM to promote the PDQ and CANCERLIT databases as integral components of the MEDLARS system. A growing number of physicians are obtaining personal codes to MEDLARS, as is evidenced by the 33,000 subscriptions to the NLM Grateful Med software. The Marketing Office and NLM are reaching physicians to reinforce that, in addition to MEDLINE, Grateful Med offers access to PDQ and CANCERLIT.

As previously noted, a new PDQ User Guide for the NLM system was introduced in August 1990. Cross promotion and marketing efforts between NLM and ICIC were very successful, including a joint exhibit program presented at four major medical meetings. Joint marketing efforts will continue whenever possible.

Office of Cancer Communications

The Marketing Director is an ICIC representative (primarily for PDQ information and marketing input) on the Clinical Trials Committee, which is organized by the OCC Information Projects Branch to handle the NCI Clinical Trials Education and Promotion initiative.

The Marketing Director continues to work with the OCC Patient Education Section to promote and evaluate the new PDQ Patient Information File (PIF) project. A committee of patient educators, nurses, marketers, and physicians

will be involved in the project. The new "PDQ Speaker's Kit for Health Professionals," will be first used in this project.

The ICIC Marketing Office shares three major information support contracts with OCC: Biospherics, Inc. (N01-CO-84339), Prospect Associates (N01-CO-64077), and Explus, Inc. (263-89-C0059). Biospherics, Inc. handles general inquiry information requests, the inventory and storage of publications and materials, and coordinating and mailing large quantities of ICIC materials for the Public Inquiries Section. Prospect Associates is administered by the Information Projects Branch and is responsible for marketing communications support services. Explus, Inc., with the Information Resources Branch, is responsible for the logistical support of the Institute's exhibit program.

Cancer Information Service

CIS helps to promote PDQ by giving patients PDQ statements and information for their physicians.

Division of Cancer Prevention and Control

To increase PDQ use among minorities, ICIC is working with the National Black Leadership Initiative on Cancer (NBLIC) and the National Medical Association (NMA). PDQ and CancerFax are being demonstrated at the NMA annual meeting and in a "hands-on" interaction at a PDQ-GrateFul Med joint exhibit booth.

NBLIC will be involved in the PDQ Patient Information Project, and joint efforts will continue wherever possible.

Exhibits

ICIC attends medical meetings to promote the Institute's scientific information services, especially PDQ and the Journal.

ICIC has expanded its PDQ exhibit and joined NLM at four annual meetings: the Oncology Nursing Society in May 1991, the American Society of Clinical Oncology in May 1991, InforMed in June 1991, and the National Medical Association in July 1991. The response to this teaming has been overwhelmingly positive. ICIC will continue some joint exhibits with NLM next year.

In addition, ICIC attended the following meetings as, in some cases, not only an exhibitor but also a sponsor of a special activity or event.

Society of Surgical Oncology (March 1991)

Patient Educator's Conference, sponsored by the NCI and Mayo Clinic - PDQ presentation and demonstration for Patients (PIF) project (April 1991)

Medical Library Association - special PDQ training as part of the official MLA program (June 1991)

National Medical Association - special presentation to the NMA Women's Auxiliary and PDQ demonstration as part of the official NMA program (July 27-August 1, 1991)

American Hospital Association - demonstration of PDQ patient information (September 1991)

FIP-Pharmacy World Congress - PDQ demonstration (September 1991)

Based on positive feedback, increased awareness, and use of ICIC products and services at medical meetings (especially where NCI has a related activity), the exhibit program now includes regular special events with the exhibits to optimize exposure. Proposals have been submitted to the Oncology Nursing Society, the American Society of Clinical Oncology, and the Medical Library Association for program participation at 1992 conferences.

Through exhibits and seminars, the Marketing Office coordinates special activities with oncology nurses and medical librarians who are intermediaries for physicians and patients and who are frequent PDQ database users. The Marketing Office will continue to enlist nurses, medical librarians, physicians, and other health professionals to advise and consult on developing user education-awareness materials.

Because significant staff resources are needed to support such a proactive, comprehensive exhibit program, ICIC continues to use a logistical support contract to handle exhibit activities.

EXPLUS 263-89-C-0059

Title: National Cancer Institute Office of Cancer Communications (OCC)-
International Cancer Information Center (ICIC) Exhibits Program and
OCC Museum Exhibits Program

Contractor's Project Director: Melinda Cashen

NCI Project Officer: Jean G. Baum (ICIC)

Objectives:

This contract provides logistical support for the entire NCI exhibit program, including graphics, staffing, research, evaluating potential medical meeting exhibits, acquiring all related show services, and exhibit reports.

Major Accomplishments:

Provided logistical support for educational meetings in the United States and for PDQ Training Seminar at Medical Library Association meeting in May 1991 (see also Exhibits section, ICIC Marketing Office).

Evaluated medical association meetings and suggested appropriate future meetings for ICIC participation.

Significance to Institute Mission:

This contract enables NCI to maximize its efforts to distribute the latest Institute cancer information at cancer-related medical meetings and forums.

Proposed Course:

The present contract will continue to serve ICIC and OCC through February 1994.

Date Contract Initiated: February 24, 1989

Current Annual Level: Total - \$327,014 (ICIC Allotment - \$100,000)

OFFICE OF CANCER COMMUNICATIONS

Associate Director: J. Paul Van Nevel

Special Assistant: Corinne F. Vanchieri

The Office of Cancer Communications (OCC) is a major resource for distributing cancer information to the public (including cancer patients and people at risk for cancer) and to health professionals. The office handles the Institute's communication activities and, within the structure of the National Cancer Program, develops initiatives for meeting Institute responsibilities mandated by the National Cancer Act.

OCC activities include responding to press inquiries; preparing news releases, press summaries, announcements, and background statements for the press; and assisting in press room operations at major cancer-related scientific meetings. OCC develops reports and publications, speeches and congressional testimonies, reports required by law, special reports for the Institute Director's byline, and a variety of publications and audiovisual materials for public and professional audiences.

OCC designs exhibits primarily for health professionals and scientists. These displays are shown at scientific and professional meetings to present information on cancer and on ways to tap Institute and other organizational resources.

OCC handles controlled and Congressional inquiries and public inquiries requiring written responses. OCC also distributes publications and replies to telephone and Cancer Information Service toll-free number inquiries.

The office approach to issuing information on cancer prevention and control is to work with the intermediary groups that can more easily reach certain audiences. Such groups are cancer centers and cancer societies, non-cancer related groups (fraternal organizations, medical societies, community groups, etc.), and the mass media. The major projects being undertaken are cancer prevention awareness, breast cancer, and patient education, and cancer in special populations. Other areas being addressed are pretesting and evaluating all communication projects; (2) support for the Cancer Information Service; (3) an internship program for graduate students in journalism, communications, etc.; and (4) the News Section of the Journal of the National Cancer Institute.

The Journal of the National Cancer Institute, a peer-reviewed scientific journal published biweekly, contains a News section of articles that provides perspective on cancer research findings and cancer-related issues and politics. The associate director for cancer communications is the editor of the News section; his special assistant is the associate News editor. Articles and graphics for this section are written and designed by OCC staff.

Mildred Jacobus is secretary to the associate director and Kimberly Scott is the budget assistant.

Reports and Inquiries Branch

Chief: Eleanor O. Nealon

The Reports and Inquiries Branch (RIB), which consists of three sections--Reports Section (Press Office), Public Inquiries Section, and Cancer Information Service Section, handles public affairs, public information, and community outreach programs. It responds to inquiries about cancer from cancer patients and their families, health professionals, the public, and the news media and distributes information on research findings and on Institute activities and messages. Distributing such information is handled in many ways: reports and other publications, speeches and Congressional briefings, magazine articles, news releases and fact sheets for the news media, patient publications, materials on cancer prevention and early detection, a toll-free cancer information line, and community outreach programs.

This year, concept approval for a major restructuring of the Cancer Information Service took place (details to follow). An Open Forum was held for public comment on the new proposal, and an RFP was released to recompetete the program. All of the program (including the present national office) will convert to regional offices servicing the entire country.

Working with the public affairs directors at NCI-designated cancer centers, RIB continued to expand and strengthen the national communications network. The network includes not only comprehensive cancer centers but also clinical, basic, and consortium centers. The branch worked with Hoffmann-La Roche to co-sponsor a well-attended science writers' seminar in New York City on "Advances in Cancer Research: New Targets in Detection and Treatment," offering the media and public a better understanding of the importance of biomedical research. The branch also presented "A Practical Approach to Handling Public Inquiries," an NIH Public Affairs Forum. Staff played a lead role in planning and carrying out the second Women's Leadership Summit, "Women in the Workplace: The Challenge of Breast Cancer." This summit, co-sponsored by NCI and the Susan G. Komen Foundation, was held on Capitol Hill, with Mrs. Marilyn Quayle and Mrs. Barbara Bush taking a part in the event. Representatives from more than 70 corporations attended, and many worksite programs dealing with early detection and follow-up for breast cancer have been started. Plans are now being made with comprehensive cancer centers to hold regional summits on the challenge of breast cancer. The availability of conference grants for this purpose has been announced.

Anne Morris is the branch secretary.

Reports Section

Head: Patricia A. Newman

Staff continues to respond per year to about 5,000 inquiries from journalists representing daily and weekly newspapers, magazines, trade newsletters, and the electronic media, as well as from journalists representing newspapers and magazines for physicians and scientists. The staff also contacted the media on many occasions to inform them of upcoming meetings, press conferences, or major reports. The average number of press calls was 30-35 calls per day, with an average of 600-700 press calls per month. Based on a rudimentary system to

record all in-coming telephone calls, staff handled nearly 22,000 telephone calls (press calls included) during the year, for a average of about 1,800 calls per month.

Inquiries from reporters span the breadth of cancer research, as well as AIDS research, particularly regarding risk factors and drug and vaccine development. In March, the Institute held a press conference announcing the results of a major national clinical trial for treatment of rectal cancer to accompany a nationwide distribution of these results to physicians.

Other subjects still attracting widespread interest from the press are the annual cancer statistics update, electromagnetic fields, bone marrow transplants, cancer in minorities, cancer prevention through diet and screening, and new cancer treatments.

To respond more effectively to press inquiries, staff prepared research updates, backgrounders, statements, news releases, and fact sheets for a variety of cancer research topics. Many of these materials were modified by the Public Inquiries Section for the general public.

The section staff attended the annual ASCO and AACR meetings, as well as more specialized meetings on biologicals, breast cancer, oncogenes and molecular biology, and the origins of human cancer.

Memoranda were written on a variety of cancer research topics to share information with other OCC staff and the Cancer Information Service. Staff updated the Cancer-Related Meetings and Events Calendar for distribution; distributed all new updates, backgrounders, statements, fact sheets, and notes-to-editors to about 250 reporters; kept a variety of mailing lists; and distributed OCC materials in a special weekly mailing to the Cancer Information Service.

Section staff prepared byline articles on a variety of topics for the News section of the JNCI.

The section still manages the computer functions for RIB and the OCC Associate Director's office: word processors, personal computers, and printers. The section continued its efforts to upgrade the capability and reliability of the computer system, which includes 14 word processors and 10 personal computers.

Staff

Permanent staff: Elaine Blume and Linda Anderson, senior science writers; Florence Antoine, Kara Smigel, Michael Newman, and Frank Mahaney, full-time science writers; Jenny Arnold, Barbara Anthony, and Nancy Munro, editorial assistants; and Marilyn Pazornik, part-time information clerk. Temporary staff: Tom Reynolds, full-time science writer; Jill Waalen, Linda Schwab, Tom Reynolds, and Nancy Volkers, graduate students completing internships in science writing; Tanisha Odle and Ursula Sinkler, student aides.

Written Materials

Updates

Three Cancer Centers First to Receive Peer Reviewed NCI Comprehensive Status, October 1990; Americans Are Not Eating Enough Fruit and Vegetables, November 1990; NCI Centers Participate in Modified Group C IL-2/LAK Program, November 1990; Designer Mice Could Aid Cancer Treatment, January 1991; Eight Cancer Centers Receive Peer Reviewed NCI Comprehensive Status, February 1991; Getting the "FAX" on Cancer Treatments, March 1991; Gene Blocks Cancer Spread in Mice, April 1991; NCI Designates Two Institutions as Comprehensive Cancer Centers, May 1991.

Fact Sheets

National Cancer Institute Comprehensive Cancer Centers, October 1990; Occupational Risk of Cancer from Pesticides: Farmer Studies, October 1990; National Cancer Institute Comprehensive Cancer Centers, February 1991; Heterocyclic Aromatic Amines in Cooked Meats, March 1991; NCI's Clinical Trials Cooperative Group Program, March 1991; National Cancer Institute Comprehensive Cancer Centers, May 1991; NCI-Designated Cancer Centers Public Affairs Network, May 1991.

Statements

NCI Awards Construction Grants to California & Wisconsin Cancer Centers, October 1990; Family Cancer Syndrome Tied to Gene Defect, January 1991; Atlas of U.S. Cancer Mortality among Nonwhites: 1950-1980, January 1991; Women's Health Trial Moves Forward as Feasibility Study, March 1991; High Rates of Non-Hodgkin's Lymphoma Predicted in AIDS Patients, May 1991; Environmental Tobacco Smoke, July 1991.

Notes to Reporters and Editors

First Human Gene Therapy Study to Treat Cancer Approved, November 1990; Scientists at NIH Treated First Cancer Patients in a Human Gene Therapy Trial, January 1991; 1991 Artois-Baillet Latour Health Prize Awarded to Dr. Thomas Waldmann, May 1991.

For one of the year's major clinical cancer research conferences at the meeting of the American Society of Clinical Oncology (in Houston, May 19-22, 1991), staff prepared three press summaries about NCI investigators' research findings and one fact sheet describing the Institute's cancer centers public affairs network, as well as assisting with a major press conference. Two press summaries were prepared for the annual meeting of the American Association for Cancer Research meeting (in Houston, May 15-18, 1991) and four summaries were written and sent to the VII International Conference on AIDS (in Florence, Italy, June 16-21). Press summaries for these meetings were distributed to the press.

JNCI News Stories

October 3, 1990

Appropriations Delays Threaten Widespread Cuts in Biomedical Research
Can an Immune Response Be Conditioned?
Nuclear Facility Mortality Study Is Negative

November 7, 1990

AIDS Drug Gets Trial as Cancer Therapy
Winners of Anti-Tobacco Contest See D.C.
Three Cancer Centers Receive NCAB Approval of Comprehensive Status
Bone Marrow Transplant Pioneer Wins Nobel

November 21, 1990

Low-Fat Diet Trial Set To Take Off
False Screening Claims Undermine Breast Cancer

December 5, 1990

Cancer Vaccines: Researchers Seek To Turn Promise into Practice
Blue Cross/Blue Shield Decides To Cover Costs for Some Clinical Trials
President's Panel Talks Communication

December 19, 1990

Clinical Alerts: Broder Discusses Pros and Cons on the Record
Human Gene Therapy Trial in Cancer Patients about To Begin

January 2, 1991

New Technologies Profoundly Change Cancer Research in 20 Years
International Collaboration May Enhance Proton Therapy Research
Genes, Yew Trees, Lasagna, and More: Top 1990 Cancer Stories

January 16, 1991

Scientists Study Families in Pursuit of Cancer Genes
1971-1991: Science Unlocks Cancer Cell Secrets
Cold Spring Harbor Symposia: Time Capsule of Cancer Research
Patient Accrual Is Up for High-Priority
Atlas Maps Cancer Mortality among Nonwhites

February 6, 1991

How a Tumor Suppressor Works
Cancer Prevention: Out of the Shadows and into the Cell
Electromagnetic Fields and Cancer--Media and Public Attention Affect
Research

February 20, 1991

Non-Hodgkin's Lymphoma Rate Climbed Rapidly
Clinical Announcements Where Do We Go from Here
Infective Dermatitis Linked to HTLF-1

March 6, 1991

National Cancer Program Created Network for Delivering Research Results
Women's Health Trial on Trial
Kidney Patients Poll Experts, Fight for Approval of Interleukin-2

March 20, 1991

Combined Treatment Substantially Improves Outlook for Rectal Cancer
Twenty Years of Progress in Immunology Research Is Ready for Harvest
Surgical Oncology Research is Relatively Meager
Organizations, Government Are Scrambling To Ensure Quality Mammography

April 3, 1991

1971-1991: Biological Therapy Moves from Bench to Bedside
Healy Sails through Senate Confirmation Hearing
High Expectations for Colony-Stimulating Factors
AAAS Panel Discusses Cancer and Aging

April 17, 1991

Twenty Years Mark Success against Tobacco Use
Oncologists Discuss Barriers to Providing Treatment
Experts Sharply Divided on Prostate Cancer Screening

May 1, 1991

Tropical Rain Forest Conservation Tied to Drug Development
Oncology Professions Transformed in 20 Years: Patients Benefit
New Strategies Developed To Prevent Serious Infections in Children
Researchers Look For Ways To Overcome Multidrug Resistance
Supreme Court Rejects Appeal in the Case of John Moore's Spleen
New York Legislation Mandates Some Off-Label Drug Coverage

May 15, 1991

Worldwide Immunization Program Targets Hepatitis B and Liver Cancer
M.D. Anderson Tribute: Texas' World Class Cancer Center Builds on
First 50 Years
Ambulatory Center Is a Growing Priority
Anti-Smoking Forces Retaliate against Overseas Tobacco Marketing
National Cancer Act Hailed at Kennedy Hearing

June 5, 1991

Epidemiology: Uncovering Clues to the Mysteries of Cancer
High-Alcohol Mouthwashes Are under Scrutiny

NIH Record

Obrams Named Chief of the Extramural Programs Branch, E&BP, DCE, NCI, October 1990; Mays Named Director of NCI's Office of Technology Development, October 1990; Study Suggests Nuclear Plants Pose No Cancer Threat to Neighbors, October 1990; NCI Honors Its Employees at Awards Ceremony, November 1990; General Therapy Approved for Melanoma Patients, November 1990; American Are Not Eating Enough Fruit and Vegetables, December 1990; Dr. Pizzo Honored in Washingtonian Magazine, December 1990; First Cancer Patients Get Gene Therapy, February 1991; Designer Mice Could Aid Cancer Treatment, February 1991; New NCI Deputy Director, March 1991; Cooked Meats May Pose Cancer Risk, Study Shows, April 1991; Huibregtse Wins Fellowship, April 1991; Gene Blocks Cancer Spread in Mice, Say NCI Scientists, April 1991; Dr. Waldmann Receives Award, May 1991; Dr. Epps 1991 Physician of the Year, May 1991; 1991 Artois-Baillet Latour Health Prize Awarded to Dr. Thomas Waldmann, May 1991; Dr. B. Kramer Appointed Associate Director of Early Detection and Community Oncology Program, June 1991.

Public Inquiries Section

Head: Christy Thomsen

Since the National Cancer Act was passed in 1971, mandating the Institute to provide information about cancer to the public, to health care professionals, and to cancer patients and their families, the Public Inquiries Office has become a very important resource for the Institute and the general public.

With the impact of this mandate in FY 1991 alone, the section responded to 360,000 requests for information (telephone calls, letters) and distributed more than 17 million publications. A contractor assists the Public Inquiries staff in this effort.

The number of telephone calls, letters, and publications requested each year reflects the following: American public's growing interest in the scientific advances in cancer prevention and treatment; the amount of media attention given to cancer; and the Institute's efforts to distribute information on cancer, as well as the results of cancer research.

Activities

Answering Telephone Calls

The office is responsible for answering all telephone calls made to the Institute, except those from the media or for a particular staff member. Such calls are from cancer patients and their families, the general public, regional Cancer Information Service offices, physicians, nurses, social workers, Congressional staff on behalf of their constituents, business and industry, foreign cancer patients-family members, lawyers, stock brokers, insurance companies, marketing representatives, theorists (who have a cancer cure), students, and others. Inquiries range from relatively simple questions about symptoms to complex questions requiring extensive research.

The goal is to handle all calls appropriately; some calls may be referred to the NCI Cancer Information Service (CIS) toll-free number. Others--such as calls from Congress, health professionals, or patients with complicated questions--are handled by an office information specialist. Because of the increasing complexity of calls, extensive research to respond to a request is often necessary. Treatment-related questions concerning drug side effects, home care of cancer patients, and so on have reinforced the need to employ an information specialist who has had clinical experience with cancer patients. It is often necessary to develop Institute position statements to respond to news reports on cancer breakthroughs (such as FDA approval of new anticancer drugs) or to devise a standard language that all CIS offices can use to answer similar questions (such as the risk of cancer from exposure to electromagnetic fields). The staff also works closely with the NCI Press Office in preparing fact sheets for both the press and general public and for NCI press conferences and media packets.

Assisting physicians in identifying clinical trials for their patients and referring physicians who want to consult with NCI clinicians is another important office service. The staff works with the DCT staff and other NIH clinicians to compile a comprehensive list of active cancer-related protocols

at the Clinical Center and the Institute's Frederick Cancer Research and Development Center. This list is updated quarterly and is distributed to NCI staff, as requested. By searching the PDQ database, the staff can also inform physicians of appropriate clinical trials at other institutions.

Working with DCT, the staff has become responsible for handling inquiries from insurance companies that are directed to the Institute and the Cancer Information Service. In the past year, the number of requests from insurance companies for information about cancer management has increased dramatically, to about 30 calls each month. Insurance companies are primarily looking for guidance in developing standards and policies for reimbursing claims. They mostly ask whether a treatment is considered standard or experimental. Third-party reimbursement for treatment given in clinical trials is of particular concern: autologous bone marrow transplantation in treating breast cancer, for example. Responding to these inquiries usually requires (1) a lengthy discussion supported by detailed information from the PDQ state-of-the-art cancer treatment statement, (2) a description of clinical trials, and (3) a search of the PDQ database for current trials.

Assisting Visitors and Counseling Patients

As the Institute's information office, the section has many visitors each year. Visitors are primarily cancer patients or family members seeking advice and the most current information about cancer treatment. Conferences with patients and family routinely take an hour or more. Other visitors include foreign scientists, government officials, and visiting physicians and nurses seeking information about Institute programs and services.

Researching and Writing Publications

The staff is responsible for several components of the Institute's information and education materials for cancer patients and the public.

"Research Reports," a series of pamphlets describing the latest information on cancer diagnosis and treatment of major cancer sites. In FY 1991, three Research Reports were revised to reflect recent scientific changes.

"What You Need To Know about Cancer," a series of booklets with basic information on the causes, symptoms, diagnosis, and treatment of the major types of cancer. Ten booklets were written or revised.

"Cancer Facts," a compilation of nearly 100 fact sheets, covering such areas of current interest as causes, risks, diet, biological therapy, detection, new treatments, services, and NCI programs.

Response Book, a collection of about 90 statements used by CIS in responding to inquiries on such topics as unproven methods, rehabilitation, new treatments, causes of cancer, and NCI programs and policies. These statements are reviewed annually and updated as needed.

A series of flyers on discrete topics that have generated frequent inquiries. Publications on Pap smears, PDQ, the NIH Clinical Center, metastatic cancer, and getting a mammogram were developed in FY 1991.

Providing Technical Assistance

The office is a technical resource for the Cancer Information Service, for other OCC programs, and for other NCI staff. In addition, the staff consults with professional groups about the design and operation of public response programs.

Examples of technical assistance in FY 1991

- o CIS offices consult with the staff for answers to difficult cancer questions, for advice on NCI policy, and for information on research at the NIH Clinical Center. The staff reviewed materials produced by CIS offices to ensure scientific accuracy and compliance with NCI policies.
- o The staff assisted in developing the CISTERS program (a computer-assisted test call program for CIS), in developing test call scenarios, and in pretesting the system.
- o The staff assisted the Institute's Patient Education Program by reviewing its patient materials for scientific accuracy, appropriateness, reading level, and sensitivity.
- o The staff helped the Information Projects Branch in preparing clinical trial videotapes for physicians and patients.
- o The staff is responsible for informing CIS of active Pediatric Oncology Branch trials and for assisting physicians in referring their patients.
- o The staff supported other NCI offices in helping them respond to large numbers of inquiries from write-in campaigns initiated by activist organizations. This activity included drafting model language suited for the general public, obtaining clearance, and, in some cases, preparing letters of response. The staff also coordinated the Institute's response to these write-in campaigns.
- o The staff assisted DCT in preparing responses to questions on prostate cancer and unconventional cancer treatments. The staff supported the Clinical Oncology Program in its patient education efforts and in answering patient and physician letters addressed to Dr. Steven Rosenberg, concerning gene therapy and his adoptive immunotherapy treatments.
- o The staff was often asked to present an overview of its activities to other NCI programs. In FY 1991, presentations were made to the NIH Clinical Center's cancer nursing staff, the International Cancer Information Center staff, the Cancer Communication fellows, comprehensive cancer center patient educators, and clinical cancer center patient educators.

Managing the Public Inquiries Technical Support Project

Since 1974, The office staff has been assisted by a support contractor in answering letters, operating the national office of the Cancer Information

Service, and storing and distributing NCI publications. In FY 1991, this contract was staffed by 60 full-time equivalent employees.

The office is responsible for managing this large contract, which requires daily contact with contractor staff, monthly staff meetings, and continual monitoring of quality and performance. There has been an increased demand for contractor services. Health information specialists staff 14 WATS lines, and the monthly numbers of calls have increased from 5,000 a month to 8,000. In FY 1991, the telephone service was migrated to FTS 2000, the government's long-distance service. This migration took 18 months of planning and became effective in June, with no loss of service.

The staff is responsible for answering letters written to the Institute. This year, there were 115,000 letters requiring a "non-custom" reply; that is, a letter could be answered by sending a publication. However, 8,000 letters required a "custom" response, which addressed each aspect of the inquiry at a comprehensible level. Letters from cancer patients were answered within 4 days of receipt. Most custom letters took from 30 minutes to 60 minutes to research and write. All letters prepared by the contractor were reviewed by the staff before mailing.

Letters requiring special handling are labeled "controlled" correspondence: ones originally addressed to the President, the Members of Congress, the Department Secretary, or other government officials. In FY 1991, 380 controlled letters were prepared.

The national Cancer Information Service, operated by the support contractor, handled about 30 percent of the calls in the United States; local CIS offices handled the remaining calls. After regular working hours, the national CIS handled all calls until 10 p.m. In FY 1991, the national CIS answered 85,000 calls for information (compared to 75,000 calls in FY 1990) and 160,000 calls for the Publications Ordering Service. Statistics on volume of calls have shown a steady increase in the length of each call (reflecting its complexity) and the public's increased awareness about cancer.

The Institute's initiative to increase patient accrual for clinical trials has had a significant impact on the operations of the national CIS. All telephone information specialists received training in counseling callers about clinical trials, about the availability of such trials, and about taking part in these trials. Information specialists relied on the Institute's PDQ database to discuss state-of-the-art treatments and to identify clinical trials for callers. In FY 1991, 22,000 PDQ treatment statements were sent to callers, and 4,000 customized database searches were conducted to identify possible clinical trials.

In FY 1991, 17 million NCI publications were distributed to individuals, cancer centers, hospitals, physicians' offices, industry, and other groups in the country.

Resource for the Cancer Information Service

Since FY 1989, when OCC undertook the administrative responsibility for the local Cancer Information Service, the Public Inquiries staff assumed a greater role in assisting the CIS program.

Significant areas in which the staff has assisted the CIS Project Officer are management review of the network; developing a training program for responding to breast cancer inquiries; site visits to CIS offices in Florida and Massachusetts; reviewing CIS policies and procedures; developing policies and procedures for CIS staff to access information from the Institute PDQ database on clinical trials; and reviewing materials developed by regional CIS offices for technical accuracy and adherence to NCI policies and guidelines.

Support for CIS

- o Answering technical questions received from CIS offices.
- o Informing regional offices of upcoming scientific conferences, events, or media stories that may prompt an influx of calls to CIS.
- o Providing CIS offices with the information and materials for responding to inquiries from the public and from cancer patients.
- o Routinely reviewing and updating the NCI materials used by CIS offices for responses to inquiries to make sure that the most current information is relayed.

Support for the International Cancer Information Center

ICIC is responsible for the Institute's scientific information services: technical journals, specialized publications, and the PDQ database. The staff assists ICIC with the following.

- o Distributing ICIC publications
- o Revising the PDQ Patient Information File
- o Assisting CIS staff in using PDQ

The staff, with its support contractor, maintains a computerized inventory and ordering system for ICIC printed materials. All these materials are shipped from the contractor's warehouse: promotional mailings, educational literature to health professionals, and materials for scientific exhibits at professional meetings. To aid ICIC with its program planning, the staff helped to establish procedures for requesting such mailing and distribution services and for a more effective accounting of these services.

Because Public Inquiries wrote many of the Institute's patient materials, staff took part in developing the PDQ Information for Patients project. The staff helped to develop guidelines for writers to follow by reviewing resources and suggesting materials to be referenced for further reading and by reviewing new statements as they are prepared.

In addition to these activities, the office also staffed PDQ exhibits at professional meetings for oncology nurses and physicians; assisted CIS regional offices in using the database; and offered ICIC programming staff suggestions for searching enhancements.

Operating the NCI Gift Fund

The office is responsible for tracking monetary donations to the Institute and preparing customized letters acknowledging these donations. In FY 1991, nearly 4,000 letters were prepared.

Maintaining the SEER Inventory

The staff assisted the DCPG Cancer Statistics Branch with contract support for storing the SEER Program's publications and distributing these materials to cancer researchers and tumor registrars nationwide. Staff prepared publication request forms, developed computerized inventory control procedures, and established procedures to track the distribution of materials.

Staff

Judith Patt and Linda Slan, science writers; Mary Bright, R.N., public affairs specialist; Nina Greene, secretary; Sherece Batchelor, clerk-typist; and Roshell Jenkins, stay-in-school clerk.

Cancer Information Service Section

Head: Kathleen T. Duffy

CIS is a nationwide network of 22 regional offices that provides the latest information on cancer to patients and their families, health professionals, and the general public. Each day over 2,000 inquiries are answered by these regional offices and one national office in Maryland. CIS was started in 1976; in recent years more than 500,000 inquiries are received in a year. This year marks the 15th anniversary; more than four million calls have been received.

The Cancer Information Service Section manages the 22 regional offices across the country. Each office is responsible for three primary activities in its service area.

- o Operating a toll-free phone service called the Cancer Information Service.
- o Developing and carrying out cancer information and education programs.
- o Developing local resource directories of cancer related services and programs.

The toll-free telephone service is the largest, most visible component of the CIS program. The CIS regional offices serve 35 states and Puerto Rico, representing about 80 percent of the total national population. Each local office is open from 9:00 a.m. until 4:30 p.m., Monday through Friday, local time. The national office, directed by the Public Inquiries Section, covers the remaining states and provides back-up service for the local offices until 10:00 p.m., Monday through Friday.

On June 17, 1991, CIS finished converting its telephone system from the advanced 800 system to the FTS 2000 system. FTS 2000 offers the program advanced telecommunications technology for improved service and significant cost savings. The program will benefit not only from improved call routing

capabilities but also electronic mail and data transmission enhancements. CIS is the first government program to undertake this conversion, which required more than one year of planning and the coordination of telecommunication services at all CIS locations across the country.

In FY 1991, the staff in the regional offices responded to more than 286,000 inquiries. Patients and family members represented the highest percentage, accounting for almost 50 percent of all inquiries. Health professionals and the general public accounted for 6 percent and 28 percent of inquiries, respectively.

The public demand on the CIS system is increasing not only in numbers of calls but also in length and complexity. This is partly due to significant promotional levels of national electronic and print media.

The nature of the calls vary widely, ranging from questions on treatments for specific types of cancer to questions of early detection and cancer prevention. While all calls are important, calls from cancer patients and their families are most critical, as the information they receive can affect their lives and, in many cases, can be life-saving. These callers most often request information on the treatment and prognosis for specific types of cancer.

The staff uses the Institute's computerized database Physician Data Query (PDQ) to give the latest information on treatment options for specific types of cancer and stages of disease. Because CIS relies heavily on using PDQ, CD-ROM technology was introduced to cut costs and improve its efficiency in conducting searches. The staff worked with the developers of the CD-ROM technology to be trained in using this technology.

While patients tend to be more concerned about their current treatment and side effects, friends and family members more often ask for information about second opinions and the availability of clinical trials. In addition, family members often need more supportive counseling from the staff. In FY 1991, CIS handled more than 19,000 requests for help in coping with the illness of a loved one. However, the staff is sensitive to the psychosocial nature of all calls from patients and their family members and often addresses this issue. As more patients live longer, CIS is more often called to help the patient in the rehabilitative process and in returning to work. CIS increasingly receives calls about insurance for long-term survivors, employment needs, and other rehabilitation services.

Questions from the general public often concern specific cancer risk factors. In FY 1991, over 52,000 people received counseling on smoking cessation from CIS. More than 15,000 individuals wanted more information on the relationship between diet and nutrition and the risk of cancer. The public is very sensitive to the media coverage on cancer risk factors, and the CIS must be prepared to respond instantly to late-breaking stories. CIS relies on the Public Inquiries Section and the Press Office staffs to research answers to such questions so that the staff can respond quickly and accurately.

As well as responding to public inquiries, CIS assists the Institute and other organizations in publicizing important cancer messages. In 1991, CIS played a key role in supporting the Institute's breast cancer screening initiative.

This support involved both the telephone service and the outreach components of the CIS program.

From callers using the toll-free telephone service (1-800-4-CANCER), more than 200 CIS information specialists nationwide responded to more than 30,000 inquiries on screening mammography. These calls followed planned national promotions and new stories by the media. An extensive training program on breast cancer was developed to supplement the standard training each information specialist receives. This training required developing guides for standardized calls on breast cancer screening, diagnosis, and treatment.

In the last year, CIS completed a pilot of its new quality assurance system, the Cancer Information Service Telephone Evaluation and Reporting System (CISTERS). The pilot assured the implementation of a statistically reliable rating system for the test call system. An Assistant Project Officer has been hired to manage the new system. The officer's duties will involve training and supervising staff and developing appropriate test call scenarios. The system will be working by the end of FY 1991.

This year heralded a new era for the CIS community outreach component and was added to the CIS program under the new contracts awarded in February 1990. It targets five specific audiences: Black Americans, Hispanic Americans, older Americans, Native Hawaiians, and low literacy audiences. These audiences were selected according to the Institute program priorities and because these audiences are traditionally in populations that call the CIS phone service. Each CIS office has selected one of these audiences to promote such Institute programs as the breast cancer screening initiative.

In October 1990, each CIS office hired one full-time Community Outreach Coordinator. The Outreach Coordinators went through an orientation at the National CIS Meeting in November 1990 and submitted their first annual plans for community outreach activities. For the selected audiences, the CIS offices have developed a core of activities to be carried out as a coordinated program for the national screening of breast cancer. Each office is also responsible for developing local information and education activities on breast cancer screening and on other topics that will address the needs of the populations in its service area.

In 1991, CIS completed a two-year Management Review of the Program. The review, authorized after the last CIS contract competition was completed, was based on the increased public demand on the program. The review was designed to explore alternative program structures and new technologies to improve the level, quality, and cost effectiveness of service nationwide. The review included discussions with current CIS program and field staff, cancer center directors, and senior NCI staff. The study also examined other toll-free services and investigated available technological and fiscal opportunities. The final report summarized the structural, technological, and fiscal alternatives for the program.

Based on the review, OCC proposed a new program structure to decentralize CIS. The proposed reorganization is designed to create a more equitable level of public service in the country by setting up regionally based offices. This reorganization capitalizes on the merits of a decentralized structure, while

taking advantage of available technology, to guarantee the most efficient operation of the program. The program will include the following.

- o 15-20 CIS regional offices serving 15-20 million individuals.
- o Regions will be designated. Offerors must bid for an entire region.
- o Nighttime coverage will be handled at a "Super Office," eliminating the duplication of resources in the national office.
- o Advanced call routing technology will allow calls to be redirected on a planned or emergency basis to designated locations.
- o The number of WATS lines will be increased by 20 percent nationwide.
- o Outreach capabilities will be expanded. The CIS program staff is expected to help with the outreach efforts of regional NCI-designated cancer centers.

Final concept approval was received from the National Cancer Advisory Board in May 1991. Public comment on proposed geographical regions was received during an open forum on June 21, 1990, and through written comments. Contracts under the new program structure will be awarded in October 1992.

Staff

Debra Steverson, assistant project Officer; Diane Ruesch, assistant project officer; Catherine Muha, assistant project officer; Linda Bridges, information services assistant; Maryann Schenkel, secretary; Eleanor Dixon, public affairs specialist; and Lou Fintor, presidential management intern.

Information Resources Branch

Chief: Nancy L. Brun

IRB supports not only OCC activities but also Institute-wide programs. The branch is responsible for developing and keeping an in-house library; designing and producing NCI printed materials; planning, designing, producing, and managing the OCC exhibit program; distributing audiovisuals through free-loan programs; developing and keeping a photo-slide archives and responses to requests for these materials; producing such audiovisuals as speaker's kits, films, public service announcements, and videotapes; coordinating special NCI events; overseeing the scientific clearance of NCI printed materials; responding to requests for information through the Freedom of Information and Privacy Acts; and producing and distributing the NCI Current Clips.

Document Reference Section

Head: Judith L. Grosberg

DRS is a central information resource for OCC and the Institute. It houses an extensive in-house collection of publications, news releases, and audiovisuals

and accesses a number of on-line databases. The on-line catalogue of holdings locates items that are accessible by subject, author, title, and accession number. Over the past year, the collection database has grown by nearly 1000 items to a total of 72,000. Significant weeding of older materials has also taken place, and the collection is continuously being evaluated for its usefulness.

The DRS staff also accesses other major health-relevant databases: MEDLINE, PDQ, CANCERLINE, TOXNET, and the like from NLM; Colleague from Maxwell On Line; and Medis from Mead Data. Current news databases, such as those offered by Dialog, Nexis, CompuServe, VuText, and Datatimes are resources for OCC. The DRS staff completed searches for nearly 1,500 requestors.

DRS has continued with the NCI Health Communications Fellowship Program. This program recruits top-level graduate students for training in various areas of health communications, including science writing, health education, and information science. From January through June 1991, OCC trained three Fellows, and from July through December 1991, OCC will train two Fellows.

Graphics and Audiovisual Section

Head: Donna P. Bonner

The section provides design services for OCC staff and other NCI programs. By the end of FY 1991, it is estimated that NCI staff will have submitted more than 325 jobs for design and production. A sampling of the new designs created this year include materials for the following.

Cancer Prevention Program

Self Guided Strategies for Smoking Cessation
How to Help Your Patients Stop Using Tobacco
Healthy Eating Tips from the National Cancer Institute--recipe cards, posters

Patient Education Series

Chemotherapy and You
Radiation Therapy and You
Taking Time
Talking with Your Child about Cancer
Young People with Cancer
Students with Cancer
Hospital Days: Treatment Ways
Help Yourself: Tips for Teens
Managing Your Child's Eating Problems
Patient Education Videotape Directory
components of the Breast Cancer Education Series

Pubette Series

Q & A about Breast Calcifications
Q & A about Metastatic Cancer
Q & A about PDQ

Q & A about Mammography Facilities
Q & A about Pap Smear
Q & A about the Warren Grant Magnuson Clinical Center

NCI Publications

National Cancer Institute (brochure)
Polyp Prevention Trial
DCPC's Small Grants Program
Cancer in Populations Living near Nuclear Facilities
Cervical Cancer Control: Status and Directions
Developmental Programs and Opportunities (brochure for personnel)

Cancer Information Service

logo, masthead, envelope, rolodex card, clip art, mailing label, business card, and folder.

Low Literacy Program

The Pap Test (brochure)

Spanish Publications

Breast Exams: What You Should Know
Radiotherapy and You

Speaker's Kit

"A Mammogram: Once a Year for a Lifetime" was produced. The speaker's kit consists of 66 color slides and a script. Designed for women 40 and over, this slide presentation stresses the importance of regular mammograms and gives information on how the procedure is done and how to prepare for it. The speaker's kit was prepared for multiracial audiences and will be distributed free of charge by Modern Talking Picture Service.

Special Design Projects

- o New art storage facilities at BIO
- o New library facilities for the Document Reference Section
- o First "Science Policy Lecture Series," including the memorial ceremony for Louis Carrese
- o Coordinating the Annual NCI Award Ceremony
- o Signage, directories, and display units in the hallways of both Building 31 and Executive Plaza

This year, the staff also completed an involved task of organizing a users' catalog of visuals and captions from our photo-slide collection. This catalog will aid in identifying and retrieving visuals for the hundreds of requests received each year from the media, publishers, and other individuals and

organizations. The catalog includes a listing of individual portraits as well as photographs and slides of many aspects of cancer research.

The section responded to 503 requests for visuals. The visuals were printed from existing photos in the archives, or in some cases, special photo sessions were arranged. Photographs were taken for different events, brochures, and posters. Photo sessions included those for the monthly "Employee of the Month" designees and for such special events as the NIH Distinguished Alumni Ceremony, press conferences, the NCI Annual Award Ceremony, and the OCC internship bi-annual graduation ceremonies. The section also provides photo support to the Journal of the National Cancer Institute News Section.

Other Special Audiovisual Projects

Two Slide Shows

"Cancer Control Research, Tobacco, and Smoking" and "Diet and Nutrition" were produced and later converted to a 60-minute videotape for Drs. Cullen and Greenwald. The videotapes were used by the USDA and for an interactive teleconference meeting held in Brussels, Belgium.

Three Audiotapes for CIS

The first tape was used to direct callers through the CIS phone system. The second tape was for the same purpose but was updated to conform to the new FTS 2000 phone system. The third audiotape was presented at the semi-annual meeting to help train CIS Information Specialists to handle calls about cancer, cancer prevention, diagnosis, and treatment.

Slide Show and Video

"Cancer in Populations Living near Nuclear Facilities" was produced for Dr. John Boice and Mr. Seymour Jablon. These audiovisuals described the purpose and methods of the study that was published as a three-volume, 1,738-page report.

Printing and Publication

Direct procurement printing is now in its second year. It was established in 1990 as a prototype program when printing authority was given to NIH research institutes in the 1988 reauthorization of the Public Health Service Act. Direct procurement has been so successful that the Institute is using this method for almost all of its printing. The benefits for using direct procurement printing are better prices, tighter scheduling, and higher quality.

This fiscal year \$2 million procured 58 direct bid contracts. The direct bid system also permitted the emergency printing of seven issues of the Journal of the National Cancer Institute. This printing was done by direct procurement when the Government Printing Office contractor went bankrupt. Without direct procurement, the Journal would have stopped publication.

Freedom of Information

This year, the Institute has answered 166 Freedom of Information (FOI) requests and 2 requests for information under the Privacy Act. The following is a breakdown of who requested information under FOIA. Both Privacy Act requests came from individuals.

Companies	91
Law Firms	29
Media	10
Individuals	14
Schools/Hospitals	15
Government	3
Public Interest Groups	4

Other Branch Activities

The Exhibit Program continues to be an effective way of conveying NCI health education messages to selected professional audiences. A five-year exhibit support contract with Explus, Inc. (previously Production House, Inc.), shared with ICIC, is in its third year. By the end of the fiscal year, OCC will have exhibited at the following events.

- o National Meeting of the National Council on Aging
- o American Public Health Association
- o Public Library Association
- o American College of Physicians
- o American Association of Occupational Health
- o Oncology Nurses Society
- o American Society of Clinical Oncology
- o American Association of Cancer Research
- o National League of Nursing
- o Regional Meeting of the National Black Leadership Initiative on Cancer

The following meetings were also scheduled but canceled when action on the FY 1991 appropriation was delayed: American College of Surgeons, American Academy of Family Physicians, American Dietetic Association, National Coalition of Cancer Survivorship, and Gerontological Society of America.

"Closing in on Cancer," two identical 500-square-foot exhibits on the history of medicine and cancer research developed for the Institute's 50th anniversary in 1987, continues to be shown in science museums and medical institutions across the country. This fiscal year, the exhibit has displayed at the Nature Science Center in Winston-Salem, North Carolina; the Dayton Area Cancer Association in Dayton, Ohio; the Montclair Regional Cancer Center in Birmingham, Alabama; the Moncrief Radiation Center in Fort Worth, Texas; and the Beaver County Cancer and Heart Association in Monaca, Pennsylvania. Plans are underway to update this popular exhibit and focus on promoting it to science museums.

The branch still distributes OCC audiovisual materials through a contract with Modern Talking Picture Association. The film "It Takes A Special Love" is being distributed to families affected by childhood cancers. This year, 210,000 people viewed this film during 6500 showings, bringing the total to

402,000 viewers in 14,000 showings. Modern Talking Pictures continues to distribute the three NCI videos on Dysplastic Nevus Syndrome. There were 150 showings of these videos this year.

Modern Talking Pictures is also responsible for distributing the "Eating For Good Health" speaker's kit. Although this kit has not been formally promoted, except through exhibits and by word-of-mouth, nearly 4,000 kits have been distributed since the program began two years ago. Feedback on the success of this kit has been overwhelmingly positive. The primary users of this kit are nutritionists, home economists, and dietitians.

Plans are underway to distribute the new mammography speaker's kit, "A Mammogram: Once A Year For A Lifetime," through Modern Talking Pictures in FY 1992.

Through its news clipping service, the branch provides a daily edition of the NCI Current Clips for NCI professional staff, CIS, and members of the President's Cancer Panel and the National Cancer Advisory Board. The branch screens eight major daily newspapers and a variety of weekly and monthly scientific and lay magazines and journals for topics of current scientific and political interest.

The branch also processed 121 non-research materials for scientific clearance this fiscal year. These materials included pamphlets, fact sheets, special communications, NIH Record stories and press releases.

Staff

Cathy Zamorano joined the staff as Freedom of Information and Privacy Act Coordinator, replacing Dorothy Hinden who left in November. Sam Whitmore continues as NCI Printing Officer, and Jean Moore completed her sixth year with the branch as a volunteer responsible for the clearance and news clipping services. Dawn Arterburn joined the branch in January as secretary, and Donna Kerrigan is on temporary assignment as a writer-editor.

Recruitment for a section librarian in the Document Reference Section is under way. Hong Vo completed his third year as a stay-in-school in DRS.

Visual information specialists for the Graphics and Audiovisual Section are Maggie Bartlett and Betty Johnson.

Information Projects Branch

Chief: Sharyn M. Sutton, Ph.D.

IPB develops, evaluates, and carries out cancer information and education programs for cancer patients and their families, the general public, and health professionals. The direction and content of IPB's information and education programs are based on the following four guidelines.

- o Efforts must effectively serve NCI priorities to achieve the Institute's Year 2000 goal of reducing cancer mortality by up to 50 percent.

- o Activities must aid the Institute's divisions by providing solid communication support for interventions and program implementation.
- o Programs must address the communities' cancer information needs, particularly the needs of underserved populations.
- o Programs must contribute to keeping OCC's position as the leading Federal source for state-of-the-art cancer education and information.

The branch's Health Promotion Section develops public education programs dealing with cancer prevention and early detection; the Patient Education Section develops education programs and resources for cancer patients, their families, and caregivers. In addition, staff at the branch level serve both sections by addressing special cancer communication issues related to OCC's four priority audiences: Black Americans, Hispanic Americans, older Americans, and low-literate people.

Health Promotion Section

Head: Jeffrey W. Mc Kenna

Despite some recent, favorable shifts in public awareness, attitudes, and behaviors regarding cancer prevention and control, serious gaps remain. For example, large segments of the public still believe "it seems like everything causes cancer" and "there's not much a person can do to prevent cancer." To broaden the public's understanding about cancer and cancer risk, OCC continued its activities to convey the "good news" on avoidable cancer risks and early detection practices and to offer practical "how-to" information to the public and health professionals.

Cancer Early Detection

IPB continued to heighten its activities in mammography education and began addressing cervical cancer detection, particularly for minority, elderly, and low-literate populations. Efforts to include prostate cancer information in programs for older Americans were also undertaken. As well as relying on mass media and working with appropriate organizations to reach the general public, the section focused its efforts on conveying Institute guidelines on early detection to physicians and other health professionals.

1. Based on consistent survey data showing that people will take advantage of early cancer detection tests if these tests are recommended by their physicians, IPB began developing a major physician education program for mammography. The program is designed to inform primary-care physicians of Institute breast cancer detection guidelines, to motivate them to apply the guidelines in practice, and to develop practical materials for office-based education and referral efforts. IPB is working with the leading U.S. physician organizations in developing plans for physician education in mammography. The branch will also take part, with representatives of these groups, in coordinating a committee to help the Institute with this program.

2. IPB collaborated with the Revlon Foundation, NBC-TV, and the National Association of Broadcasters (NAB) to produce and distribute a half-hour television special on mammography, "Once a Year for a Lifetime." It was the first public service program that NAB broadcasted by satellite to its entire membership of U.S. commercial TV stations. The TV special starred Phylicia Rashad and Jane Pauley and, in dramatic format, proved to be an effective tool for educating women about the importance of regular breast cancer screening. The program was aired in more than 100 markets. IPB is now working to develop a modular "Once a Year" program to be used by community organizations and health care facilities in educating women about mammography and early breast cancer treatment.
3. IPB's 1991 mammography public education program theme, "Do the Right Thing -- Get a New Attitude about Cancer," combined print and broadcast materials on early cancer detection, using movie producer Spike Lee and singer Patti LaBelle as "spokespersons" for the black community. The program expanded on 1990 efforts and was launched in April as part of National Minority Cancer Awareness Week. A video news release for the campaign featuring Ms. LaBelle is projected to be one of 1991's top ten releases, reaching an estimated 20 million viewers.
4. IPB continued to work closely with the Hispanic news and entertainment media, particularly the Univision and Telemundo television networks, to attract more Hispanic attention to cancer-related issues. Preparing Spanish-language media materials on early detection of breast and cervical cancers greatly increased the coverage of these topics by the Hispanic media. As part of its National Minority Cancer Awareness Week activities, IPB created a video package featuring U.S. Surgeon General Dr. Antonia Novello addressing the special needs of the Hispanic community.
5. IPB continued to distribute "Once a Year for a Lifetime" mammography education kits to various intermediary groups. These materials were designed to encourage these groups to set up community programs to educate women about the importance of regular mammography. Kits contain background information, handouts, materials to use in the mass media, and a new speaker's kit (slides and script) prepared in FY 1991. Kits were designed for Black and Hispanic Americans, as well as for general audiences.
6. IPB provided program planning and technical assistance to the new (in FY 1991) full-time community outreach coordinators at each CIS office conducting mammography education programs through community organizations, professional associations, and the mass media. These programs are intended for Black and Hispanic Americans, older Americans, and people of low literacy.
7. IPB followed up on the Institute's second Women's Leadership Summit activities, including helping with the planning of a series of regional summits to be organized with major cancer centers in 1992. The 1991 Summit, "Women in the Workplace: The Challenge of Breast Cancer," focused on motivating and enabling the business and labor communities to sponsor early detection and treatment programs for breast cancer.

8. IPB worked with other NCI units and the Centers for Disease Control to develop a program linking education efforts in breast and cervical cancer detection to local and regional agencies offering services to such underserved populations as the Appalachian poor. NCI is working with CDC, the Food and Drug Administration, the American Cancer Society, and other organizations on a National Plan for Breast and Cervical Cancer Screening to ensure the best use of available resources with minimal duplication of effort.
9. IPB began assisting DCPC in packaging mammography education materials and promoting approaches successful in the NCI-funded mammography consortium grants, particularly for underserved populations.
10. IPB developed a special Mother's Day newspaper column on mammography, featuring Ginger Sullivan, wife of DHHS Secretary Dr. Louis Sullivan. Camera-ready copies were distributed to all daily and weekly U.S. print media outlets.
11. Through a professional services contract, IPB supported special outreach activities to inform native Hawaiians about mammography and early cancer detection. Of all the U.S. racial-ethnic groups, native Hawaiian women have the highest rates of breast cancer incidence and mortality. Yet, for many unique and cultural reasons, these women withdraw from the use of mammography.
12. IPB staff gave presentations and arranged exhibits at professional and intermediary meetings to promote the Institute's early cancer detection messages and materials.
13. IPB placed its TV public service announcement featuring jazz singer Nancy Wilson in the home video version of the film "Strapless," relying on 1990 success in using the such an announcement in the video version of "Glory."

Tobacco Education

Staff is still continuing to focus on information and education activities that will both will involve more health professionals in this effort and will enhance this group's skills in counseling patients on smoking cessation and cancer prevention. Staff is also focusing on communications support for the Institute's American Stop Smoking Intervention Study (ASSIST) program.

1. IPB and the American Cancer Society continued to distribute the NCI-ACS "Quit for Good" smoking cessation materials to physicians and dentists. IPB also assisted with designing and printing of these materials and with the marketing and distribution. These efforts are to promote the Institute's Smoking and Tobacco Control Program (STCP), a nationwide program to train 100,000 primary-care physicians in state-of-the-art smoking cessation techniques by the end of FY 1992. The program will involve state health departments, medical societies, and other professional organizations.
2. IPB started similar support for the Institute's nationwide oral health training program, which is concentrating on training 50,000 dentists,

dental hygienists, and dental assistants in tobacco intervention techniques by the end of FY 1993.

3. IPB staff continued assisting STCP in developing protocols for the mass media and in developing the public information component of ASSIST. The staff focused on publicity planning and developing media materials for a national news conference to launch the program early in FY 1992.
4. IPB worked with the Office on Smoking and Health to produce and distribute a TV, radio, and print media campaign for older smokers: "It's Never Too Late to Quit." The campaign encourages smokers who want to quit to call CIS for information, counseling, and a special tip sheet for older smokers. IPB staff also served on the National Task Force on Smoking Cessation among Older Adults, convened by the American Association of Retired Persons, to develop strategies in four areas: public awareness, professional education, advocacy, and research.
5. IPB produced two more consensus handbooks based on the results of intervention research supported by STCP: "Preventing Tobacco Use among Children, Adolescents, and Young Adults: A Guide for Pediatricians" and "Tobacco Effects in the Mouth: A Guide for Oral Health Professionals."
6. IPB collaborated with Major League Baseball and the Professional Baseball Athletic Trainers Society to produce a self-help cessation guide on chewing tobacco and snuff: "Beat the Smokeless Habit." IPB also worked with the Fox Chase Cancer Center to develop and distribute a press release announcing the education project to health and sports reporters at major U.S. newspapers and TV stations.
7. IPB worked with OSH and the California Department of Health Services to package and promote to all state health departments a reel of TV antismoking commercials that California developed through its Proposition 99 tobacco tax revenues.
8. With the American Pharmaceutical Association, NCI continued distributing the pharmacists' "Helping Smokers Quit" kit and, based on the results of a national user survey of the kit, began revising the kit materials.
9. IPB staff served on the American Cancer Society's Adult Tobacco Education Review Committee to evaluate existing ACS public education materials and programs and to recommend changes in the inventory.

Diet and Nutrition

1. With DCPC and the produce industry, IPB developed plans to undertake a national supermarket communications project based on the successful "5-a-Day" consumer education program. The California Department of Health Services developed this program with the support of an NCI grant. It features a simple, positive message--"Eat five servings of fruits and vegetables a day for better health." The message is consistent with Institute guidelines that Americans should their increase fiber consumption and reduce fat consumption.

2. Through the Food Influentials advisory group of Project LEAN, IPB sponsored the development of an easy-to-read booklet of recipes and food preparation tips, which are interesting and culturally relevant to Black Americans. This "Down Home Healthy" project counters the common misconception that adopting a diet consistent with NCI's guidelines is complicated, inconvenient, bland, and expensive.
3. IPB and DCPC continued to develop a series of ethnic nutrition materials for people of low literacy. Health professionals from seven ethnic groups contributed to the development of these materials.
4. IPB developed a new Institute poster series on nutrition and distributed about 10,000 copies to nutrition and health professionals nationwide. The posters illustrate meals and food preparation tips, especially for non-reading populations, to encourage following recommended dietary guidelines.
5. IPB continued promoting Institute dietary guidelines and nutrition messages by distributing education materials to intermediaries and the public. About 2,000 more community nutrition kits entitled "Eating for Good Health" were distributed in FY 1991. More than 500,000 copies of "Diet, Nutrition, and Cancer Prevention: The Good News" and more than 50,000 copies of "Diet, Nutrition, and Cancer Prevention: A Guide to Food Choices" were also distributed.
6. With the American Dietetic Association, the American Academy of Family Physicians, and the American College of Physicians, IPB started producing a typeset version of "How to Help Your Patients Improve Their Eating Habits," a primary care physician's manual on nutrition. Through a master agreement order, DCPC will conduct a pilot test of the manual among about 1,000 physicians.

Patient Education Section

Head: Katherine E. Crosson

The section is responsible for developing and promoting state-of-the art education and information programs that enable cancer patients and their families to take part in deciding about treatment and care to achieve the best possible quality of life. The section's programs are for cancer patients, their families, health professionals, and the general public.

Major Patient Education Initiatives

Cancer Patient Education Network

1. NCI cosponsored the Second Cancer Patient Education Conference with the Mayo Comprehensive Cancer Center in April 1991. The conference was attended by 175 educators from health care settings in the north central region of the United States, by American Cancer Society volunteers from the region, and by educators from the NCI-designated comprehensive and clinical cancer centers. Plenary sessions, small group workshops, exhibits, educational films, and solution-sharing sessions were scheduled

for participants. The meeting was also attended by representatives from the American Cancer Society national office, the Oncology Nursing Society, and the National Association of Oncology Social Workers.

2. Before the Second Cancer Patient Education Conference, a needs assessment survey was conducted with the comprehensive and clinical cancer center patient educators, nurses from the North Central Cancer Treatment Group, and selected educators from the state of Minnesota. Survey results were used to plan the conference.
3. Telephone interviews with 12 of 54 educators at the comprehensive and clinical cancer centers were conducted to identify the perceived strengths and weaknesses of the evolving Cancer Patient Education Network. The results of the interviews were presented to the educators during a special session at the Second Cancer Patient Education Conference.
4. The Resource Guide to Patient Education Programs at the Comprehensive and Clinical Cancer Centers was updated for patient educators at comprehensive and clinical cancer centers. The entire guide is now part of the new cancer patient education subfile in the Combined Health Information Database (CHID).
5. The directory of patient education staff at the comprehensive and clinical cancer centers, which includes Cancer Information Staff (when applicable) and center directors and public relations staff, has been revised and distributed to the center educators.
6. A Planning Committee has been named for the Third Cancer Patient Education Conference, which NCI will co-sponsor with three centers in North Carolina: the Duke Comprehensive Cancer Center, the Lineberger Cancer Center, and the Cancer Center of Wake Forest University. The first planning committee meeting was held at the Lineberger Cancer Center in July 1991. The conference will be held in March 1992.

Combined Health Information Database

1. The cancer patient education subfile became part of the database in fall 1991. This is the first cancer subfile within the database, offering users current information about Institute resources on cancer patient education and planned educational programs for cancer patients and their families offered at NCI-designated comprehensive and clinical cancer centers.
2. The database initiative was formally presented at the Second Cancer Patient Education Conference. Print materials were developed for the orientation session and will be used with interested groups in the future.
3. Selected members of the OCC Planning Board are consulting with the Patient Education Section staff about expanding the current cancer patient education subfile and promoting the resource to educators nationwide.

Cancer Survivor Project

1. With the CIS Training Task Force, the section has planned training program to assist the CIS phone counselors with calls on issues cancer survivors and families face. The training will be held in fall 1991.
2. A Master Agreement to develop a curriculum for cancer survivors, using the new NCI patient publication "Facing Forward," was issued in fall 1990. Contract negotiations were completed in June 1991; the master agreement has been given to the Dana Farber Cancer Institute in Boston, Massachusetts, to develop and test at the community level.
3. The two new survivor publications, "Facing Forward" and "Cancer Survivorship: An Annotated Bibliography," were promoted extensively during spring 1991. Promotional announcements and copies of the publications were sent to intermediary organizations nationwide. The organizations were asked to distribute the publications to their members. The publications were also presented at the annual meeting of the National Association of Oncology Social Workers in May 1991.
4. NCI works with the National Coalition for Cancer Survivors. The organization assisted NCI with developing both of the cancer survivor publications and often uses the Institute as a consultant for their projects. John Burklow lectured at the fall 1991 annual meeting in Washington, D.C.

Cancer Patient Education Publications

1. New Publications

Cancer Patient Education Videotape Directory
Facing Forward: A Guide for Cancer Survivors
Cancer Survivorship: An Annotated Bibliography

2. Revised Patient Publications

After Breast Cancer: A Guide to Follow-up Care
Breast Biopsy: What You Should Know
When Cancer Recurs
Advanced Cancer
Breast Reconstruction
Questions and Answers about Pain Control
Chemotherapy and You
Radiation Therapy and You
Young People with Cancer
Diet and Nutrition: A Resource for Parents of Children with Cancer

3. The Breast Cancer Series is being revised. A new pamphlet "Surgery and Radiation: Treatments for Breast Cancer" has been drafted and will be pretested in patient groups before its final clearance.
4. A needs assessment survey of the NCI pediatric publications was conducted at the annual meeting of the National Association of Pediatric Social Workers.

Physician Data Query-Patient Information File

With ICIC, a demonstration project to evaluate the usefulness of the new patient information file statements, which are part of the main PDQ files, is being planned. Sixty-four patient information file statements have been developed and approved by the PDQ Editorial Board. The demonstration project will be conducted in libraries, educational resource centers, and health care settings.

Clinical Trials Education and Outreach Project

1. One-page descriptions on nine high-priority clinical trials designated by DCT have been completed. The Series III trials were designated in fall 1990, and the Series IV trials were announced in June 1991.
2. The third issue of UPDATE was published in December 1990, and the fourth was published in summer 1991.
3. With the American College of Surgeons, the section completed two videotapes on clinical trials: "Patient to Patient: Cancer Clinical Trials and You" and "Physician to Physician: Perspectives on Clinical Trials." The videotapes are being promoted nationwide to the NCI cooperative groups, selected intermediary organizations, the NCI Community Clinical Oncology Programs (including the Minority CCOPs), and the cancer centers. There was a special promotion of the videotapes for members of the American College of Surgeons Commission on Cancer. The College is requesting that all Commission members use the tapes in the continuing education programs for their tumor boards and for the local medical societies.
4. Two presentations regarding the education and outreach project were given for the Cooperative Group Chairmen in November 1990 and May 1991.
5. A needs assessment survey was conducted with the Minority CCOP chairmen to determine their needs for minority patient recruitment. Survey results indicated that educational resources needed to be translated into Spanish and to be geared for Black American audiences. Efforts will be made in these areas in FY 1992.
6. Formal presentations regarding the NCI Clinical Trials Education and Outreach Initiative were presented at the following meetings: the Sixth International Cancer Nursing Conference, the Gynecology Oncology Cooperative Group Annual Meeting, and the American Cancer Society Primary Care Nursing Conference. The patient recruitment and outreach initiatives were presented to the following groups: the Southwest Oncology Group, the Northeast Regional Nurses, the Eastern Cooperative Oncology Group, the Pediatric Oncology Group, the Illinois Cancer Council, the American College of Surgeons, and the Cancer and Leukemia Group B.
7. With the Clinical Therapy Evaluation Program, plans to address the reimbursement issues associated with clinical trials have been started.

Warren H. Magnuson Clinical Center - Cancer Patient Education Committee

A Cancer Patient Education Committee has been organized at the Clinical Center and is co-chaired by IPB staff member Julie Steele. The committee has designed a needs assessment survey that will be given to patients and to the Cancer Service health professional staff. The results will help to direct committee initiatives.

Consultation

Section staff consults on cancer patient education issues with outside groups and organizations. Staff addressed students at Lynchburg State College, the University of Tennessee, and the Johns Hopkins Schools of Public Health and Hygiene.

Special Population Initiatives

Hispanic American Education

1. During National Minority Cancer Awareness Week (NMCWW), IPB distributed more than 4,000 cancer prevention program kits to key Hispanic organizations and Hispanic print and broadcast media in the United States and Puerto Rico. The campaign theme, "Hágalo hoy...Por su salud y su familia," focused on early detection of breast and cervical cancers.
2. A television public service announcement from the "Once a Year...for a Lifetime" program, featuring Hispanic actress Lupe Ontiveros, was repackaged and distributed to all public service directors of Univision and Telemundo's owned and operated (O&O) stations in the United States and Puerto Rico. IPB also produced a 25-minute B-roll in English and Spanish, featuring U.S. Surgeon General Dr. Antonia Novello. The B-roll was distributed to the news directors of Univision and to Telemundo O&Os in the United States and Puerto Rico.
3. IPB also took part in radio and television interviews and worked with the Cancer Information Service offices in major cities to stimulate local coverage of breast and cervical cancer problems among Hispanic Americans.
4. Media coverage of the week's activities and messages is summarized below. ABC, CBS, NBC, and Fox used the B-roll for local newscasts in Los Angeles and San Diego, CA; Washington, DC; Richmond, VA; Lubbock, TX; and Erie, PA.

Univision National News

Ran a segment on April 15 on the 6:30 p.m. and 10:30 p.m. national news. The national news is broadcast to all 539 affiliates in the United States and Puerto Rico and to several Latin American countries.

KLUZ-Channel 41, Albuquerque, New Mexico

Ran one segment on April 12 and April 15.

WUSA-TV, Washington, D.C.

Ran one segment on April 15, using the Hispanic B-roll during a local newscast at 4:30 p.m.

WAPA-Channel 4, San Juan, Puerto Rico

Ran one segment on April 17 during a local newscast.

Telemundo Network News, New York, New York

Fed the B-roll via satellite to all its owned and operated stations.

WMDO-AM, Washington, D.C., Metropolitan Area

During the daily 12 noon newscast, coverage of NMCAW included using kit materials to cover breast and cervical cancer issues among Hispanics and interviewing Elva Ruiz (NCI), Carlos Pundick (CIS-Miami), and Mayra Vega (CIS-Puerto Rico) by telephone.

KXKS Radio, Albuquerque, New Mexico

Used PSAs and other kit materials for newscasts during the week.

5. IPB also assisted the Inter-American College of Physicians and Surgeons (ICPS), in producing a 30-minute show on women's health. ICPS used the Spanish language B-roll and the written materials from the kit to produce the show. The show aired on May 12.
6. IPB worked with DCPC in the initial planning of a special Hispanic outreach effort: the National Hispanic Leadership Initiative on Cancer. IPB also conducted a complete review of its Spanish-language publications to update these publications and to develop new ones.

Black American Education

1. During National Minority Cancer Awareness Week in April, IPB distributed more than 7,000 cancer prevention program kits to key Black American organizations and to the nation's black and urban print and broadcast media. The campaign theme "Do the Right Thing . . . Get a New Attitude About Cancer" focused on early detection of breast and cervical cancers. A video news release on mammography, featuring singer Patti Labelle, was distributed via satellite to stations in major markets.

The release was extremely successful and ranked as one of the top 10 health-oriented releases for the first six months of 1991. For this period, the total audience numbered 14,629,000. IPB also took part in radio and TV interviews and worked with CIS offices and the National Black Leadership Initiative on Cancer (NBLIC) regional coordinators in major cities to stimulate local coverage of the cancer problem among Black Americans. The kit also addressed the issues of smoking cessation and nutrition.

2. IPB continued to provide technical assistance and education materials to the six NBLIC regional coordinators. As part of this collaboration, IPB staff took part in NBLIC regional commemorative events in April; the events marked the public launching of NBLIC and focused on the issue of early cancer detection.
3. With the Auxiliary of the National Medical Association (ANMA), IPB developed a Black Women's Mammography Education Project to be carried out by ANMA chapters. As part of this project, IPB prepared and distributed a special community action kit "Breast Screening for Black Women." To expand this program, the section is developing a project for physician promotion of mammography with NMA and ANMA.
4. To address the critical issue of cancer mortality among Black Americans in the District of Columbia, IPB continued to work on a special D.C. communications initiative. This initiative is to assist the District's health commission and hospitals in developing and carrying out an effective cancer prevention and control plan. IPB is helping with the market research, with the developing and reviewing of messages and materials, and with the consultation and technical assistance.
5. As part of the D.C. communications initiative, IPB worked with the D.C. Commission of Public Health to distribute and monitor two television public service announcements featuring Wes Unseld, the Washington Bullets' basketball coach. With NBLIC, IPB also set up the spots in Baltimore and Richmond areas. IPB began investigating the possibility of marketing the public service campaign through the National Basketball Association.

Cancer and Older Americans Initiative

Cancer affects the age group of 65 years or older more often than any other age group. Fifty-eight percent of all cancers strikes this population, which represents only 12 percent of the general population. Persons age 65 or older are at 10 times the risk of developing cancer than those under age 65. In FY 1991, IPB continued a cancer education and information program for older Americans and their caregivers, as one component of the Institute's multifaceted approach to the cancer problem in this population.

1. IPB has drafted a plan for a program to teach older Americans, particularly older minorities, about cancer prevention and early detection. The background information for this draft was collected from relevant research literature, needs assessments, focus group reports, and existing programs in other government agencies and private organizations.
2. IPB conducted in-depth interviews with members of the target population to collect data for preparing the program's content, format, and style.
3. IPB developed the following materials for the program: a brochure for early detection of cancer for persons age 65 or older; a draft version of a speaker's kit to be used by health volunteers who speak to older audiences about cancer; a fact sheet on cancer and older Americans to be

used as a reference for speakers and caregivers; and clip art to used by the media.

4. IPB continued to work with the American Association of Retired Persons in developing education materials for the association's network of health advocacy volunteers.
5. IPB issued a fact sheet on the NCI Education Initiative to more than 400 press contacts throughout the country, spurring many newspaper, newsletter, and magazine articles.
6. IPB developed several media materials including radio talk show kits, modular print articles, and posters.
7. IPB formalized a partnership with the National Institute on Aging to carry out the Education Initiative for Older Americans.
8. IPB chaired a meeting of Federal agencies involved in cancer education and older Americans to exchange information and to discuss opportunities for collaboration.
9. IPB worked with CIS in establishing strategies for distributing information.
10. IPB distributed a brochure for early detection to members of the target population to test the format and the effectiveness of the messages.

Cancer and Low-Literate Populations

About 27 million American adults are functionally illiterate. Many of these individuals read at a fifth-grade level or lower. Most of NCI's health education print materials are written for a tenth-grade reading level and higher. IPB is bridging the gap between these reading levels. IPB established a low-literacy program in FY 1991 to address the health information and education needs of such populations. Activities included the following.

1. IPB conducted market research on (1) the extent of the illiteracy problem in the United States, including definitions and measures of literacy and illiteracy; (2) the impact of illiteracy on health; and (3) national and international organizations in literacy and health fields that distribute information to low-literate audiences. IPB staff contacted these organizations to establish a network.
2. One of the key problems in trying to communicate cancer risk reduction, early detection, and treatment information to low-literate audiences is the lack of suitable materials for this audience. Efforts began in FY 1991 to develop or revise several NCI publications for low-level readability. A Pap test booklet written at the third-grade level was developed and pretested with low-literate individuals. IPB also worked with DCPC in developing Ethnic Patient Nutrition Education materials. These materials are being developed for American Indians, Native Hawaiians, Native Alaskans, Asians, Hispanics, Blacks, and low-literacy Whites.

3. IPB issued a Master Agreement Order to encourage innovative methods in communicating cancer detection messages to low-literate audiences.
4. IPB staff served on Secretary Sullivan's Health Promotion Initiative Workgroup No. 6, which was composed of representatives from diverse DHHS government agencies. The Committee developed "Draft Guidelines for the Development of Low Literacy Print Materials."
5. IPB provided technical assistance to the CIS Low Literacy Outreach Group in developing cancer prevention, early detection, and treatment materials for low-literate audiences.
6. IPB's Low Literacy Program Coordinator and the staff from the AMC Cancer Center formed a low-literacy team, which will coordinate a National Advisory Group to define national disease prevention strategies for low-literate audiences.

Staff

John Burklow, Nelvis Castro Morales, Kathleen Loughrey, Ruth Mattingly, Wendy Mettger, Ellen Mirin, Betty Spicher, and Julie Steele, program staff; Rori Blakeney, Juanita Fisher, Florence Shaw, and Cynthia Wilkins, support staff; and Juliette Siegfried, health communications intern (July-December 1991).

Publications

Stevenson E, Crosson K. Patient education: history, development, and current directions of the American Cancer Society and the National Cancer Institute. Semin Oncol Nurs 1991;7(2):135-42.

Crosson K, Agee N. Clinical Trials: A constellation of decisions for the primary care nurse. In: Proceeding of the American Cancer Society 6th National Conference - "From Primary to Tertiary Care: Across the Life Span," in press.

News Section, J Natl Cancer Inst, articles by Julie Steele

Breast Cancer Bill Passes: CDC Awaits Appropriation
September 19, 1990 - Vol. 82, No. 18

Cancer Pain Workshop Develops Recommendations
October 17, 1990 - Vol. 82, No. 20

Cancer Patients Experience Acute, Long Term Anxiety
December 19, 1990 - Vol. 82, No. 24

Patient Accrual Is Up for High Priority Trials
January 16, 1991 - Vol. 83, No. 2

Having Cancer and Looking Different: A Classroom Experience with Hair Loss
April 17, 1991 - Vol. 83, No. 8

Virginia Program Keeps Cancer Patients in Their Communities
June 5, 1991 - Vol. 83, No. 11

OFFICE OF LABORATORY ANIMAL SCIENCE

Director: John C. Donovan, D.V.M.

Deputy Director: Patricia A. Brown, V.M.D., M.S.

The Office of Laboratory Animal Science (OLAS) is responsible for the following duties.

- o Coordinating and directing laboratory animal care and use in Institute research programs.
- o Advising and assisting the Institute Director and staff on all aspects of animal care and use.
- o Assisting with developing Institute policy on the care and use of animals. Developing and carrying out mechanisms for monitoring compliance with NCI, NIH, DHHS, and USDA policies, guidelines, and regulations to assure uniform, ethical, and humane animal care and use in all Institute research programs.
- o Managing and coordinating the use of centralized laboratory animal holding and research facilities in the Institute.
- o Serving as a liaison between NCI and organizations and institutions concerned with the ethical and humane care and use of animals in research.

OLAS consists of a central office (headed by a director and deputy director) and two sections: the Laboratory Animal Resources Section and the Laboratory Animal Medicine Section.

The office's primary mission is to establish and maintain animal care and use program activities that support scientifically sound animal-based research. Inherent in this goal is the Institute's responsibility to conduct animal research in a legal, moral, and ethical manner with a high degree of sensitivity to humane concerns and animal well-being.

OLAS Objectives

- o Developing program elements to meet or exceed the standards of the NIH Guide for the Care and Use of Laboratory Animals and to assure that the Institute's program will be accredited by the American Association for the Accreditation of Laboratory Animal Care (AAALAC).
- o Overseeing animal research activities that are governed by the NCI Animal Care and Use Committee and its divisional animal care and use subcommittees. These subcommittees are constituted and operated according to PHS Policy on the Humane Care and Use of Laboratory Animals.
- o Managing centralized animal care programs and facilities to provide a controlled, healthy, and appropriate environment for keeping research animals and conducting animal experimentation.
- o Counseling Institute management and scientists on laboratory animal medicine and science.

OLAS Activities

- o On March 18, 1991, the regulations regarding Part Three of the amended Animal Welfare Act became effective. These regulations significantly changed the requirements for the humane handling, care, treatment, and transportation of dogs, cats, and nonhuman primates. The NCI Animal Study Proposal was revised, and the Nonhuman Primate Enrichment Plan was developed by the Institute's Animal Care and Use Committee to meet the new requirements.
- o OLAS staff members took part in the source selection process for all NCI contract involving animal use. This process guarantees that competing offerors and future contractors can comply with the guidelines and regulations governing the use of animals in research and testing.
- o OLAS installed a local area network (LAN), linking computers in the main office to computer setups in the animal facilities. OLAS office staff and facility managers received formal training in LAN operations and E-Mail. The local area network has significantly improved the capability to track animal usage for the NCI Animal Care and Use Committee and to meet the Animal Welfare Act and PHS Animal Welfare Policy requirements for animal accountability.
- o OLAS staff represented NCI at many PHS and NIH committees meetings: the Interagency Animal Model Committee, which oversees chimpanzee utilization; the NIH Animal Care and Use Committee; the Trans-NIH Coordinating Committee for Research Animal Resources; the NIH Animal Program Advisory Committee of the AAALAC Oversight Committee; and the NIH Occupational Safety and Health Committee. OLAS staff were members of NCI divisional animal research subcommittees, as well as chairing the NCI Animal Care and Use Committee. The OLAS Director is also a member of the FCRDC Animal Care and Use Committee. These committee involvements have enabled OLAS to help with activities that affect NCI animal research.
- o Progress towards accreditation by the American Association for the Accreditation of Laboratory Animal Care (AAALAC) continues. NCI is taking part in the NIH AAALAC Accreditation Plan; the goal is accreditation for the entire NIH intramural research program. NIH applied for accreditation in December 1990; the site visit is expected at the beginning of FY 1992. One major task remains before completing NCI preparations for accreditation: to officially open the Building 10A animal facility. Beneficial occupancy began in May 1991; NCI consolidated all its Building 10 satellite activities and moved them to 10A in July 1991. NCI occupies about 20% of the new facility's animal holding capacity. The facility includes a specialized area for NCI to conduct rodent research using high-energy, short-lived radioisotopes for studying radiolocalization and radiotherapy of tumors with monoclonal antibodies.
- o OLAS staff still takes part in the NCI Adopt-a-School Program with McKinley High School in Washington, D.C. At a briefing and on a tour of the Building 37 animal facility, the students learned about the role of animals in biomedical research and the complementary aspects of good animal care and good science.

- o A program was started in the Institute's animal facilities to orient new investigators in the proper procedures for working in the facilities, for ordering animals, and for completing the NCI Animal Study Proposal form.

Laboratory Animal Medicine Section

Head: Clara J. Witt, V.M.D., M.P.H.

Section Responsibilities

- o Managing the animal health assurance and quality control program for the intramural research program, including preventative medicine measures, animal disease investigation, genetic monitoring, disease surveillance, and other related activities.
- o Advising investigative staff on animal model selection, comparative medicine, disease interference, and other factors that may complicate or invalidate research results.
- o Providing or coordinating veterinary care of laboratory animals.
- o Managing a centralized animal surgical facility.

Section Activities

- o Continuing a sentinel program for monitoring the health status of Institute animals. In analyzing the data gathered, the section has determined the general health status of research animals in each of its on-campus facilities. It has made recommendations on animal husbandry to the Laboratory Animal Resources Section and has carried out the necessary preventive medicine practices for protecting the health of Institute animals.
- o Working with investigators on animal disease detection, diagnosis, treatment, and control. The section was able to detect and eradicate infestations of intestinal parasites before these problems became widespread. The sensitivity of the animal health surveillance program and the use of a new treatment regimen enabled early detecting and effective treating of infestations before more animals and experiments could be affected. The section has also focused on the impact of subclinical infections of murine viruses on the experiments with immunocompromised rodents, particularly nude mice and severe combined immunodeficient (SCID) mice.
- o Advising 33 of the intramural program's laboratories and branches on animal care and use. Assisting investigators in the design of animal study proposals to ensure the following: compatibility with sound scientific principles of animal experimentation and compliance with the PHS Policy, the Animal Welfare Act, and other guidelines for the humane use of animals in research. Coordinating training and assisting investigators in techniques of basic animal care and use and in animal model selection.

- o Operating the newly renovated 14-D large animal surgical facility, which supports the animal research programs of NCI's Surgery Branch.

Laboratory Animal Resources Section

Head: William J. Hinkle

Section Responsibilities

- o Managing the Institute's centralized animal holding and research facilities.
- o Developing and carrying out internal procedures and practices to comply with the NIH, PHS, DHHS, and USDA policies, rules, and regulations.
- o Planning the breeding and purchasing of animals to assure adequate supplies for Institute programs.
- o Consulting with the Institute's scientific investigators to determine animal care and husbandry needs. Providing the required services.
- o Providing technical assistance and guidance to the Institute investigative staff on the biology and handling of laboratory animals.

The section operates four Central Animal Facilities, two in Building 10 and one each in Buildings 37 and 41. These Central Animal Facilities use 15,555 square feet of space and daily house 21,333 rodents and 94 rabbits for research conducted in three NCI Divisions.

Section Activities

- o As the Institute animal care staff in the Building 10/B2B Central Animal Facility has gradually been reduced by attrition, the caretaker responsibilities have been taken over by the Program Resources, Inc., a prime contractor of FCRDC. Central Animal Facilities in Buildings 37 and 41 are now managed by contract services. LARS has placed four animal care employees in other positions at NIH. The remaining Institute staff have filled vacancies in areas that support NCI animal care in the Clinical Center or that support delivery services in Building 37.
- o Renovations to the Clinic Tower Animal Facility and beneficial occupancy on NCI's 12C and 13C floors are complete. The facility was renovated for minor program modifications and for upgrading the walls, floors, ceiling, and doors to meet standards for accreditation.
- o Designs for the OLAS-initiated project to renovate the cagewash area on the B2 level of Building 10 have been completed; construction began in October 1990. This area is being upgraded not only to meet accreditation standards but also to create two cagewash facilities. One facility will support the NCI B2B Central Animal Facility, a pathogen-free operation; the risk of conventional animal holding areas in the Clinic Tower Animal Facility contaminating this pathogen-free operation will now be reduced. The Clinic

Tower Animal Facility, which contains four NCI animal rooms, will use the other renovated cagewash area.

- o To maintain accreditation standards, the Building 37 Cagewash Area was renovated during FY 1991. This renovation included resurfacing the floor, patching and painting the walls and ceiling, installing aluminum guard rails, and replacing the existing autoclave with one from the Building 10-B2B Central Animal Facility.
- o By renovating the B2B Central Animal Facility, about 250 square feet was added to the animal holding space. Removing an autoclave that was no longer needed allowed space for this additional animal room, which will house about six more racks of rodents.

Staff Presentations and Publications

Brown PA. Laboratory animal medicine training programs (lecture). Walter Reed Army Institute of Research Laboratory Animal Medicine Seminar, Bethesda, November 1990.

Brown PA. Guinea pigs: models and uses in research (lecture). Laboratory Animal Medicine Seminar Series, U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, Frederick, March 1991.

Brown PA. Introduction to the hamster and guinea pig (lecture). National Capital Area Branch-AALAS, Laboratory Animal Technician Training Course, Bethesda, March 1991.

Childs J, Witt CJ, Glass G, Moench T. Feline immunodeficiency virus survey in Baltimore. Feline Practice 1990;18(4):19-23.

Donovan JC, Brown PA. Care and handling of laboratory animals. In: Coligan JE, Kruisbeek AM, Margulies DH, Shevach EM, Strober W, eds. Current protocols in immunology, volume 1. New York: Greene Publishing/Wiley-Interscience, 1991; 1.0.1-1.8.4.

Donovan JC. Rats: models and uses in research (lecture). Laboratory Animal Medicine Seminar Series, U.S. Army Medical Research Institute of Infectious Diseases, Frederick, January 1991.

Donovan JC. Future direction of the AALAS technician training program (lecture). Chairman, Platform Session, American Association of Laboratory Animal Care Annual Meeting, Milwaukee, October 1991.

Hinkle WJ. Animal husbandry and gnotobiology (lecture). National Capital Area Branch-AALAS, Technician Training Course, Bethesda, March 1991.

Witt CJ. Inbred rodent strains: derivation, nomenclature, maintenance and genetic monitoring (lecture). Walter Reed Army Institute of Research, Laboratory Animal Medicine Lecture Series, Washington, DC, January 1991.

Witt CJ. Laboratory animal genetics and reproduction (lecture). National Capital Area Branch-AALAS, Technician Training Course, Bethesda, February 1991.

Witt CJ. Laboratory animal anatomy and physiology (lecture). National Capital Area Branch-AALAS, Technician Training Course, Bethesda, March 1991.

Witt CJ. Biology, care, diseases, and models of the hamster (lecture). Laboratory Animal Medicine Seminar Series, U.S. Army Medical Research Institute of Infectious Diseases Lecture Series, Frederick, May 1991.

Witt CJ. Tumor study guidelines (lecture). Difficult Procedures Section, Selected Issues on the Well-being of Animals Used in Research, Testing and Education. Sponsored by the Scientists Center for Animal Welfare, Philadelphia, June 1991.

Witt CJ, Plemons T, Stahl M, Flynn M. A simple and efficient method for bleeding rabbits (poster session). American Veterinary Medical Association Annual Meeting, Seattle, July 1991.

OFFICE OF THE ASSISTANT DIRECTOR

Elliott H. Stonehill, Ph.D.

One of the major responsibilities of the Assistant Director (AD) is to serve as the Executive Secretary for the President's Cancer Panel. Dr. Armand Hammer, who was the Chairman of the President's Cancer Panel since 1981, died on December 10, 1990. Dr. William Longmire and Dr. John Montgomery, who served for extended terms with Dr. Hammer, were replaced by new appointees.

The Panel consists of three Presidential appointees, all having been newly appointed on April 15, 1991. Dr. Harold P. Freeman is Chairman; his appointment extends to 1994. Mrs. Nancy G. Brinker was appointed to a term ending in 1993, and Dr. Geza J. Jako was appointed to a term ending in 1992.

Last year, before the death of Dr. Hammer, the President's Cancer Panel held meetings at Brown University, Providence, Rhode Island (10/22/90); Bethesda, Maryland (11/16/90); and San Francisco, California (12/7/90).

The meeting at Brown University concerned "Cancer Communications and Information Transfer" and was attended by Senator Claiborne Pell of Rhode Island. Also on the agenda, together with others from NCI and Brown University, were Dr. Sandor Eckhardt, Director of the National Institute of Oncology of Budapest, Hungary, and Dr. Paul Calabresi, Director of the Roger Williams Clinical Cancer Center.

The meeting in Bethesda dealt exclusively with "Human Gene Therapy." Presentations to the Panel were given by Drs. Samuel Broder, W. French Anderson, and Steven A. Rosenberg.

The meeting at the University of California at San Francisco dealt with the theme "Fundamental Research in Cancer: Issues and Progress." Dr. Julius R. Krevans, Chancellor of the University of California at San Francisco and Dr. Broder gave the welcoming and opening reports; seven other scientific reports were delivered. Nobel Laureates, Drs. J. Michael Bishop and Harold E. Varmus, were hosts for this meeting and contributed significantly to the discussion with the Panel.

The new Panel members have held two meetings since their appointments. On July 9, a meeting at NIH dealt with "Cancer and Poverty." There were presentations by Dr. Louis W. Sullivan, DHHS Secretary, and Dr. Bernadine Healy, NIH Director. The agenda included statistical and socio-demographic analyses of various aspects of cancer incidence, biology, and treatment.

On September 20, a meeting of the President's Cancer Panel was conducted at the Morehouse College of Medicine in Atlanta, Georgia. The theme of that meeting was "Training in Science," and many aspects of the complex problems in this area were discussed.

The AD is responsible for the Office of the Medical Applications of Cancer Research (OMACR) and often works with the NIH Office of Medical Applications of Research (OMAR). As NCI's representative to OMAR, the AD is a member of the NIH Coordinating Committee on Assessment and Transfer of Technology (CCATT), which supports the consensus development programs at NIH. On December 11-13, 1991, NCI is co-sponsoring the Consensus Development Conference on Acoustic Neuroma and is

planning activities for the Consensus Development Conference on Early Diagnosis and Treatment of Melanoma on January 27-29, 1992.

The Consensus Development Conferences at NIH are generally three-day meetings for international specialists who are experts in the field of the technology featured at the each conference. At the conclusion of the conference, a consensus statement is written by a non-Federal panel of experts. These statements are published and used as guides for world-wide practicing physicians and health providers. In addition to the OMAR conferences, NCI also co-sponsored a workshop on the adoption of Quality-of-Life Endpoints in Clinical Trials.

A major AD responsibility is to serve as the reviewing and recommending official of professional staff requests for outside activities. More than 1,000 requests are annually logged in the office, each receiving the kind of attention to assure the absence of real or potential conflicts of interest. This year, computer datafiles were designed to track outside activity requests for all employees. Nearly 1,200 requests have been entered in the datafiles. With this system, the AD will have more flexibility and accessibility during the review and analysis process and will be able to quickly generate reports requested by different Institute and NIH components. This year, the Ethics Reform Act of 1989 and its honorarium ban became effective. There have been many inquiries from the professional staff regarding the interpretation of this ban, which required many reviews of the requests and conferences with NIH and DHHS Ethics Officials.

Another AD function is the signatory responsibility for NCI contracts and Interagency Agreements. The AD is also the Designated Agency Ethics Official (DAEO) for reviewing confidential reports of employment and financial interests of all NCI scientists, clinicians, administrators, and managers. The AD also reviews the Executive Personnel Financial Disclosure Reports submitted by the senior and higher-ranked Institute staff.

This review of employee holdings and outside sources of income affirms the absence of any real, apparent, and potential conflicts of interests, as may be detected by reviewing the employees' reports. The DHHS Standards of Conduct and other pertinent regulations apply to staff, to members of NCI advisory groups, and to other non-federal affiliates. About 600 reports from NCI staff are reviewed. This year, Congress and the Office of Government Ethics enacted new ethics regulations. Additional training sessions were organized by the AD to inform NCI staff of the new regulations.

Data on many AD office operations, such as the approval of NCI contracts, staff records of public and confidential financial interest reports, and ethics training, have been entered into electronic databases. Ethics training was given to 335 NCI staff members this year; more than 1000 Institute employee have now been trained in Government ethics. Matters pertaining to outside activities, avoidance of conflicts of interest, post-employment restrictions, the Ethics Reform Act of 1989 and its honorarium ban, the Procurement Integrity Act, and other ethical issues covered by Federal laws and NIH and Department regulations are discussed. Safeguards against conflicts of interest, as well as other potential violations of ethical conduct, have been successfully carried out within the Institute.

OFFICE OF TECHNOLOGY DEVELOPMENT

Director: Thomas D. Mays, Ph.D., J.D.

The Office of Technology Development (OTD) focuses on legislation, regulations, and administrative activities pertaining to Cooperative Research and Development Agreements (CRADAs), Material Transfer Agreements (MTAs), Employee Invention Reports (EIRs), Patents, Licenses, and Royalty income. The office advises and assists Institute staff in these areas and is a contact for inquiries from individuals, committees, and organizations within and outside the Federal Government.

For this fiscal year, OTD will have overseen the execution and enactment of about 24 CRADAs; about 18 additional agreements are under negotiation.

MTAs, which differ from the NIH-ADAMHA model MTAs, are usually processed through the division director's offices. OTD reviews these agreements or, if necessary, writes special terms or conditions. The office has reviewed and processed about 200 MTAs.

OTD has received and processed about 60 EIRs from DCT, DCE, DCBDC, and FCRDC.

OTD has streamlined the administrative processing of CRADAs, MTAs, and EIRs. The office has started receiving copies of MTAs processed by the Institute divisions. Databases are being established to monitor CRADAs, MTAs, and EIRs and to update information regarding these contracts or reports.

OTD has also held workshops and given reference materials to the NCI scientific and administrative staffs to assist them in complying with Department technology transfer regulations and NIH policies. Staff advisory services now include preparing pre-patentability reports, which contain information supporting administrative decisions to obligate Institute funds for U.S. and foreign patent application filings. The reports will also effect significant cost savings by providing decision-making documentation at an early stage in the disclosure process.

Offering more informative materials, more advisory services, and more efficient monitoring of the various agreements and patent applications will ensure the protection of Institute's intellectual property portfolio. And by fine-tuning the office operations, the staff will be able to promote technology transfer as described in the Federal Technology Transfer Act of 1986 and as subsequently amended.

EQUAL EMPLOYMENT OPPORTUNITY OFFICE

Coordinator: Maxine I. Richardson

The Adopt-A-School Program, which involves a partnership between NCI and McKinley High School in the District of Columbia, is in its second year. The Institute has designed a new phase to this program--The Teachers Enrichment Program. Its goal is to increase the professional development of minority high school science teachers. The program has two components: a program of lecture, seminar, or demonstration series to be presented at the NIH during the school year and a program of paid summer interns conducting basic research in NCI laboratories. For this summer session, six students and three teachers from McKinley were employed.

The EEO staff has worked diligently to recruit minority women and handicap students for employment in the Student Research Training Program.

The NCI Periodical Recycling Program is thriving; the average number of cartons distributed annually to minority institutions is steadily increasing, the number of distributed cartons averaging 620 cartons.

The staff has started an EEO lecture series program. The semi-annual lectures are on EEO and management issues effecting the workforce in the year 2000. The first lecture was held in May; the second is scheduled for November. Speakers from inside and outside the Federal government will be invited to lecture.

The EEO staff, with the Institute personnel staff, is continuing its efforts to further Institute EEO initiatives that ensure the success of the Disabled Individuals and Veterans program.



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